draft 1978

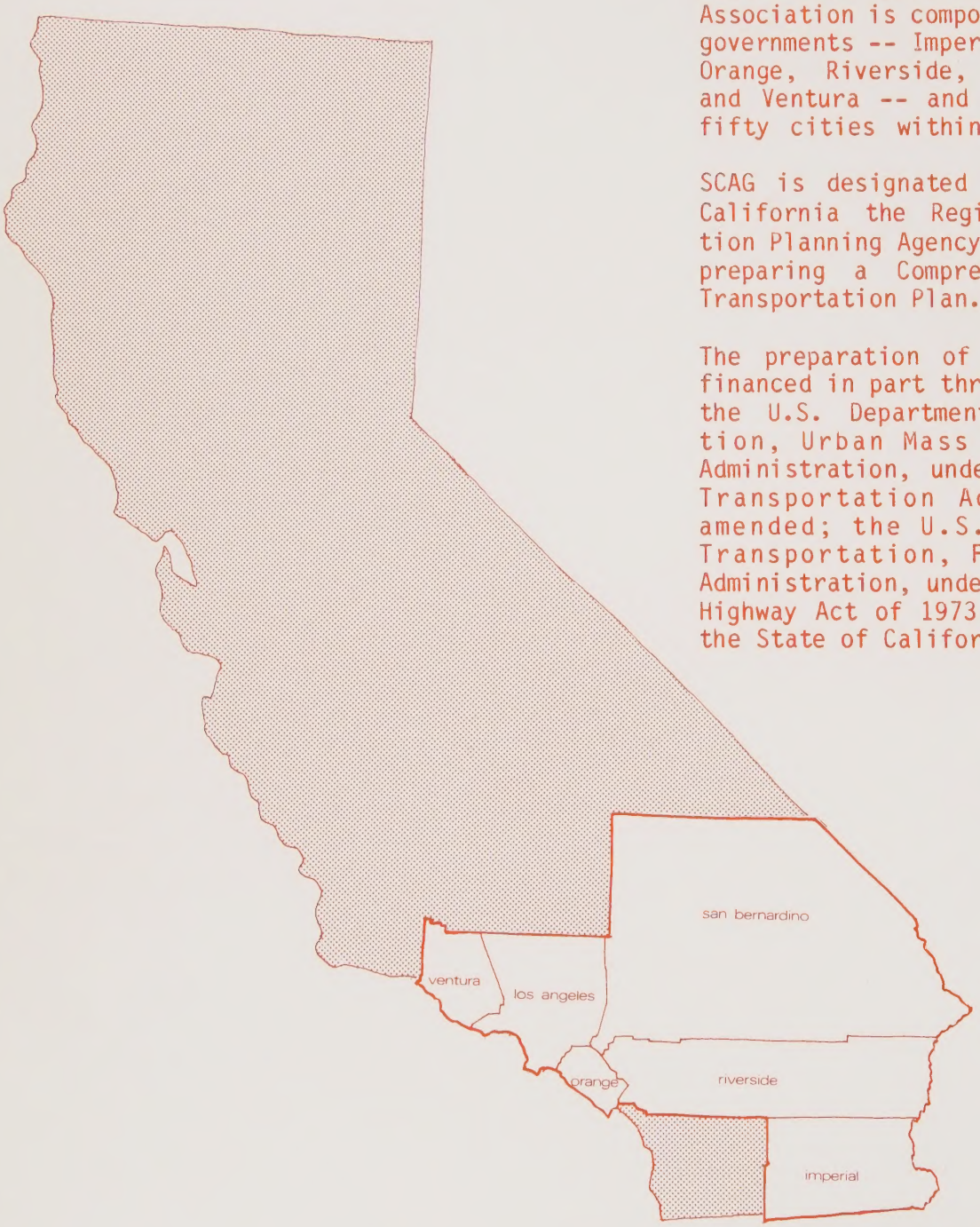
regional transportation plan

southern california association of governments

The Southern California Association of Governments (SCAG) was formed by local elected officials in 1965 to deal with issues of regional concern. SCAG is a partnership of local governments joined together in voluntary agreements under the Joint Exercise of Powers Section of the California Government Code. The Association is composed of six county governments -- Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura -- and over one hundred fifty cities within these counties.

SCAG is designated by the State of California the Regional Transportation Planning Agency, responsible for preparing a Comprehensive Regional Transportation Plan.

The preparation of this report was financed in part through a grant from the U.S. Department of Transportation, Urban Mass Transportation Administration, under the Urban Mass Transportation Act of 1964, as amended; the U.S. Department of Transportation, Federal Highway Administration, under the Federal Aid Highway Act of 1973, as amended; and the State of California.



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regional transportation plan

prepared by

southern california association of governments

The Environmental Impact Report of the Plan is contained in a separate document

PUBLIC PARTICIPATION KEY DATES

WORKSHOPS

May 23 1:30 - 5 PM	Imperial County 1100 Main Street El Centro
May 31 1:30 - 5 PM 7 - 9 PM (E & H only*)	Los Angeles County Los Angeles Area Chamber of Commerce 404 S. Bixel Los Angeles
June 2 1:30 - 5 PM (E & H evening workshop; see date and place noted below*)	Ventura County Oxnard Community Center 800 Hobson Way Oxnard
June 6 1:30 - 5 PM 7 - 9 PM (E & H only*)	San Bernardino County San Bernardino Convention Center 303 N. E Street San Bernardino
June 7 1:30 - 5 PM 7 - 9 PM (E & H only*)	Riverside County Raincross Square 3443 Orange St. Riverside
June 8 1:30 - 5 PM 7 - 9 PM (E & H only*)	Orange County Garden Grove Community Meeting Center 11300 Stanford Garden Grove

PUBLIC HEARING

June 22 1:30 - 5 PM 7 - 9 PM	Patriotic Hall 1816 S. Figueroa Los Angeles

* (E & H - Persons who are elderly and/or handicapped)
At each location and concurrently with the Transportation Plan and EIR workshops (which are to be held in the afternoon) a special workshop dealing with the transportation of elderly persons and of persons who are handicapped will be held. This workshop will be repeated in the evening (except in Ventura County, where the evening workshop for elderly and handicapped persons will be held on Thursday, June 1, at the Garden Grove Elementary School, 2250 Tracy Avenue, in Simi Valley, from 7:00 - 9:00 p.m.)

For the convenience of persons wishing to attend, but who cannot because of lack of accessible transportation, special arrangements for transportation may be possible. Contact Cleo Johnston at SCAG, 600 South Commonwealth, Suite 1000, Los Angeles, CA 90005; (213) 385-1000.

FOREWORD

While transportation recommendations must be based on the best available information, political decisions are ultimately required. And these decisions must reflect the public will. When risks must be measured against benefits, when economic and environmental values must be weighted and balanced, the public has the right and the obligation to make its views known.

SCAG welcomes public participation, because informed and involved citizens and citizen groups are essential for action to improve our regional transportation system. The views, opinions, needs and desires of the public will continue to be sought as SCAG updates the regional plan.

What can you do to make a difference in the transportation planning process?

First of all, get informed about local, regional and state transportation proposals, plans and programs. Once you have this basic information, the next step is to evaluate it within your own experience, based on where you live and travel.

Then, determine what you want in transportation, now and in the future. Take your ideas, requests and suggestions to your local elected officials, to planners, or to others who are working on the problems.

Get involved with your neighborhood or community planning group. Find out who does this work in your area. Encourage civic and local organizations to have programs on transportation issues.

And be sure to let us know at SCAG how you feel about transportation. We invite your participation in public hearings, forums, workshops, and by writing or calling us. SCAG encourages public input and involvement -- yes, and even prodding and constructive criticism of its regional planning program.

For further information, please contact the SCAG Community Relations Office.

The Southern California Association
of Governments
600 S. Commonwealth Avenue, Suite 1000
Los Angeles, California 90005
(213) 385-1000

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summary

1.0

1.0
INTRODUCTION

The Southern California lifestyle is built on travel. Our homes and businesses are spread across 1,600 square miles of urbanized area; the region as a whole occupies 38,000 square miles. Our 10 million residents have over 5-1/2 million autos, and drive them daily on the region's 3,700 miles of freeways and highways, and thousands of miles of surface streets. Each day our public transit system carries over one million passengers on over 3,400 buses. In one recent year, the region's six major air-carrier airports moved some 29 million passengers and 750,000 tons of cargo. And the many general-aviation airports in the region house over 11,000 private aircraft used for business and pleasure.

For recreation, the region also has miles of bikeways, equestrian and hiking trails, and numerous marinas for pleasure boating.

Besides moving people, our transportation system moves goods and services. The highway system serves trucks as well as passenger vehicles. The three major ports of the region (Los Angeles, Long Beach and Port Hueneme) handled $13 billion in trade in 1974 -- 30% of the total trade at all West Coast ports. Three major railroads move people and freight through the region -- the Southern Pacific; the Union Pacific; and the Atchison, Topeka, and Santa Fe. Southern California has the busiest rail market in the Western United States.

All of these facilities and the people who operate them make up the region's complex transportation system. How we work, play, and live depends in large part on how well that system works.

Unfortunately, it doesn't work as well as it used to. We see increasing traffic congestion, more burning of energy, and more air pollution. The costs of just keeping up the existing system are skyrocketing -- and there are not enough tax dollars to fund all the new programs the region wants. We must decide very carefully how to spend our money.

The 1978 Regional Transportation Plan focuses on approaches to solving these and other problems. Mobility, energy consumption, air pollution, financing, project priorities -- these are some of the major transportation issues that SCAG is dealing with.

1.1
CRITICAL TRANSPORTATION ISSUES

SCAG's first major effort in transportation planning came in 1974, when eight major transportation issues were identified:

Land Use

How do our land use decisions affect the provision of transportation facilities and services, and vice versa?

Air Quality

How will changes in the transportation system contribute to attainment of clean air?

Energy

What changes in the transportation system will best conserve energy?

Access and Mobility

How can the transportation system provide better access to opportunities, and equitably improve people's mobility?

Allocation of Resources

How can our limited funds provide the greatest benefit, and how can additional funds be found?

Institutional Responsibilities

What institutions, having what responsibilities, can best provide and operate the system?

Technological and Operational Change

How can the system best incorporate new technologies?

Phased Decision-Making

How can decisions meet current transportation needs and yet keep our options open for the future?

1.2
THE REGIONAL TRANSPORTATION PLAN

The Regional Transportation Plan is updated periodically, to keep pace with changes in legal requirements, new technology, available funding, and so on. This RTP -- the fifth in a continuing series -- is built on policies and actions previously adopted (in the Critical Decisions Plan for Transportation, 1974, and the RTPs of 1975, 1976, and 1977), and includes new policies and actions adopted this year. This current Plan will, in turn, be refined and amended in future updates.

The Regional Transportation Plan must fulfill a number of state and federal legal requirements. These require that the region prepare a transportation plan which will include both short- and long-range elements, and result in a balanced and coordinated transportation system.

Other legal responsibilities to be met include the Clean Air Act. The Act requires each state to adopt a plan that will achieve and maintain acceptable air quality, using measures to control transportation, if necessary. This RTP contains policies and actions that specifically address air quality; these -- along with plans for controlling pollution from causes other than transportation -- will make up the regional element of the statewide air-quality plan.

The Regional Transportation Plan is not intended to be a builder's blueprint; rather, it is primarily a policy document that sets out clearly the ideas that will guide the future development of the transportation system. It identifies the directions in which the region must move. It says which kinds of projects are acceptable to the region and, by implication, which are not. It sets criteria by which each project can be judged, and defines what each should accomplish. The force of its policies derives from the fact that they are agreed upon by those representing every member government in the region, and the fact that only those projects and programs accepted into the Regional Transportation Plan become eligible for funding by the state and federal governments.

Each year, the RTP forms the basis for development of the Transportation Improvement Program, and is used in reviewing federal grant applications and projects using Local Transportation Fund (SB 325/821) moneys.

1.3
GOALS AND OBJECTIVES

Five broad goals for transportation have been adopted:

- To develop a transportation system which will support the comprehensive goals of the region, taking into account the effect of mode selection, location, and time upon the physical, social, economic, and organizational environment.

- To create a balanced transportation system integrated with planned land use to provide effective mobility for all people and efficient and economic movement of goods.

- To minimize the need for long distance intraregional travel, particularly work trips, by guiding the development of the region to create self-sufficient metros having balanced service facilities, employment, and housing.

- To develop for the region a transportation system compatible with the environment, using the available resources wisely, promoting the aesthetic beauty of the region, and avoiding undesirable environmental changes.

- To develop a transportation system that is financially, legally, and politically feasible, has broad public support, and has a commitment to its implementation by elected officials and those providing transportation services.

In conjunction with these overall goals, the 1978 RTP establishes four quantified objectives for the regional transportation system:

- o Reduce emissions attributable to the transportation system equivalent to a reduction of vehicle miles traveled of 5% in each five-year period from 1980 to 1995.

- o Reduce fuel consumption by the transportation system equivalent to a reduction of vehicles miles traveled of 5% in each five-year period from 1980 to 1995.

- o Increase transit ridership, currently 3.36%, to 6% of person trips in the region by 1990.

- o Increase the number of multi-occupant light-duty vehicles (i.e., carpools, vanpools, etc.) currently 2 million, to 3.0 million by 1990, for both work and non-work trips.

1.4
POLICIES AND ACTIONS

The Plan suggests various means of attaining the region's transportation objectives. These take the form of policies and actions which guide decisions on the following elements of the system: automobiles, public transit, airports, non-motorized modes, highways, maritime, and railroads.

The basic theme running through the Regional Transportation Plan's policies and actions is that of "improved system management." In each section, actions are divided between transportation system management and system development.

Transportation system management proposals encourage better use of the existing system by increasing its people-carrying capacity. Measures include ridesharing (carpools, vanpools, transit), and increasing air-carrier load factors. System management methods have lower capital cost than system development strategies, and usually can be implemented more quickly.

System development proposals include construction of new facilities such as roadways, rapid transit, expanded ports, and new airports. The costs of system development (e.g., capital construction) have increased much faster than revenue from local, state, and federal sources. This makes system development harder to finance than ever before. Since our already extensive system costs more and more each year just to maintain and operate, we should plan further development only when the system we already have cannot be made to meet our needs.

1.4.1
Multi Modal Program Development

The multi-modal section describes three specific planning approaches that transcend most of the transportation modes:

- o Transportation System Management (TSM),
- o Ridesharing, and
- o Air Quality Management.

Each planning approach leads toward attainment of the goals adopted by the region. For example, TSM attempts to make the most out of the system we have by improved management and operational efficiency. The Ridesharing Program tries to maintain mobility without adding more cars to the roads. The air quality management planning activities seek to improve air quality -- in part, by reducing the pollution caused by transportation.

Understanding the integration of these strategies throughout the plan is important, since many actions support all three programs. For example, providing exclusive lanes for transit, vanpools, and carpools is basically a strategy that encourages ridesharing. However, when two or more people who once drove separately share a vehicle, there is also less congestion and vehicle pollution. Thus the exclusive lane also meets the aims of the transportation management and air quality approaches.

A Ridesharing Plan and an Air Quality Maintenance Plan are scheduled for adoption and amendment into the RTP in the late fall of 1978.

1.4.2
Automobile Policies and Actions

On the average, Southern Californians make over three trips a day -- 96.6% of them by car. In fact, we have become accustomed to driving everywhere, often using our cars when we don't really have to. All these trips add to air pollution, traffic and energy consumption. To meet our clean-air and fuel-conservation objectives, we must learn to use our 5-1/2 million automobiles more wisely.

We have to examine how much each of us contributes to the problems, and see where we can cut back. For example, the RTP recognizes that automakers have a responsibility to develop clean-burning engines that use less fuel. But it also recognizes that we cannot meet the federal air-quality standards through cleaner engines alone. We will simply have to drive less, particularly as the population increases.

The RTP supports ridesharing to maintain mobility, reduce congestion, clean the air, and reduce consumer costs. Mandatory inspection and maintenance of light-duty vehicles (cars, vans, small trucks) is endorsed to ensure that engines don't waste gasoline or dirty the air.

1.4.3
Transit Policies and Actions

Over a million of the region's residents ride transit every day, especially for home/work trips at peak hours. The SCAG region has a number of different forms of transit, including fixed-route bus service, dial-a-ride, and some charter bus service. Paratransit service (taxis, vans) is provided by many private operators, and some local governments supply specialized services to the elderly and handicapped. AMTRAK offers rail transit between Los Angeles and San Diego.

About 850,000 people use the buses of the Southern California Rapid Transit District daily, while over 60,000 use the Orange County Transit District service. The remainder use transit provided by other counties or by cities, or services such as dial-a-ride, taxis or vans, and Amtrak.

Despite these impressive numbers, only 3.36% of daily trips are made on transit. The RTP proposes to increase this number to 6% -- which would help to cut down vehicle miles traveled.

To attract new riders, SCAG proposes various measures to improve and increase transit service -- for example, better coordination among transit operators. Transit service standards and policies have also been adopted to help improve service levels and lower costs. In addition, a revised SCAG/Public Transit Operator Memorandum of Understanding has been implemented this year.

The Plan supports preliminary work on the Regional Transit Development Program. This program initially calls for the establishment of an areawide bus-on-freeway system; construction of a people-mover system in downtown Los Angeles; and development of a grade-separated rapid transit facility running from downtown Los Angeles through North Hollywood.

The Plan also supports future transit improvements in counties other than Los Angeles, where consistent with the Regional Transit Development Program. Further, the Plan supports preliminary engineering for an exclusive transit guideway in Orange County, and transit improvements in the Los Angeles/San Diego corridor. Also urged is the expansion of the region's local service fleet by several hundred buses over the next five years.

Policies aimed at better service for the elderly and handicapped would increase the number of transit vehicles easily boardable and usable by the infirm. Transit passengers' safety and security needs would be met through such measures as improved physical planning, procedural guides for transit employees, and improved communication equipment.

1.4.4
Highway Policies and Actions

The region's vast network of highways moves more people and goods than any other segment of the transportation system. Drivers reach most destinations quickly and easily on the 1,455 miles of freeways and 2,282 miles of conventional state highways in the region. But the system has growing problems.

More and more vehicles are using the highway system, creating congestion, adding to air pollution, and consuming growing amounts of our precious energy supply.

To cope with these problems, the Plan advocates both transportation system management (TSM) measures and further system development. TSM measures are favored over system development wherever possible, due to their lower capital costs and greater ease of implementation. Specifically, the RTP recommends that highway projects be funded in the following order of priority: 1) maintenance and rehabilitation, 2) operational improvements, 3) new construction.

The RTP urges that Caltrans implement projects necessary to maintain and rehabilitate the system, or to make it safer. To ease congestion, the RTP supports traffic-operations improvements such as synchronized signals, improved striping, and upgrading of routes that can serve as alternatives to freeway travel. In addition, SCAG supports the increased use of high-occupancy vehicles (buses, carpools, vanpools) to reduce pollution and energy consumption. The Plan recommends that such vehicles receive preferential treatment on the highway system, including special reserved freeway lanes and bypass facilities at metered on-ramps.

In terms of system development, the RTP urges completion of missing links and new construction. Within the region's freeway system there are several "missing links," which are gaps between two completed portions of a freeway, expressway, or major route. The RTP recommends that such unfinished projects be completed where these projects would be less than six miles in length and their construction would allow for continuous travel in an established corridor.

In addition to missing links, there are numerous areas in the region where new freeways or major upgrading may be needed. Potential highway-system projects, now being evaluated, will be priority-ranked for possible construction in the future.

1.4.5
Airport Policies and Actions

One out of three persons who want to fly in 1995 won't be able to, if the region's expected air-travel demand for 1995 is reached and our airports have not been expanded. The RTP recommends that all six of the region's major airline airports expand to the maximum capacity currently planned.

Many airports in the region cannot grow beyond certain limits due to regulations governing noise, environmental impacts, use of airspace, and so on. The proposed Palmdale International Airport could relieve much of the expected overcrowding.

The RTP recommends that land around new airports (such as Palmdale) be planned for uses compatible with airport operations, and that all areas which benefit from new facilities share in the costs of building them. Plans for new or expanded airport facilities must, of course, meet state and federal environmental standards.

Another worsening airport problem is ground access. One solution would be to process air passengers at remote terminals and then take them to the airports in group transport. The RTP recommends that such terminals be planned for and phased in as needed.

1.4.6
Non-Motorized Modes Policies and Actions

Southern California's climate allows a wide range of leisure pursuits. Many such activities -- walking, bicycling, horseback riding, hiking -- require trails or special lanes which are part of the transportation system. The RTP Non-Motorized Section concerns itself with these modes.

The initial policies deal primarily with bicycling, which could serve many of our trips. All of the counties and 80% of the cities in the SCAG region have developed plans for bikeways, and the RTP recommends that local governments encourage and promote greater bike use. For example, safe bicycle storage should be provided at all major destinations, and cities and counties should require bike-storage facilities in large public and private buildings. The RTP also favors modifying some streets and highways to provide bicycle lanes. These actions, and programs of biker/driver education and bike-law enforcement, should promote a safe environment for cyclists and encourage the enjoyment of this useful mode.

1.4.7
Maritime and Railroads

The SCAG region has three major ports -- Los Angeles, Long Beach, and Port Hueneme -- and is served by three major railroads. Except for AMTRAK, which provides passenger service within the region, both ship and rail modes carry mostly freight. Ports are public facilities which gear their operations to the demands of the private sector. While both rail and sea transport are privately owned, each has a considerable impact on public transportation facilities, since the freight they carry is at some point trucked on public highways. Each also has an effect on the region's environment. Thus both modes must be considered in a regional transportation plan.

While approving the ports' Master Plans for development to 1990, SCAG proposes to take a more active role in reviewing individual projects. It will do this by increasing its contacts with Harbor Commissioners and Harbor Districts, and by strengthening its review of projects' Environmental Impact Statements.

Working with AMTRAK to increase the level of passenger service in the Los Angeles/ San Diego travel corridor, SCAG will also support rail passenger service in other corridors as an alternative to long-distance commuting by automobile.

The connection points that ports and railroads have with other modes (especially highways) will be carefully considered in future RTP updates. Policy guidelines for incorporating rail, port, pipeline, and truck considerations will be developed in future regional plans.

1.5
FINANCIAL SECTION

The financial element of the plan presents a summary of existing sources of funds to provide transportation services and facilities in the SCAG region. Financial need for the future is then projected on three levels:

a financially constrained plan (below current service levels),

a maintenance of current services level plan (keeping service as is),

an unconstrained plan (expanding levels of service).

For transit, the implications of a financially constrained plan vary from county to county. In counties other than Los Angeles, moderate system expansion is possible even in the constrained case. However, in Los Angeles, if no added funds are found to support SCRTD's operations, further service cutbacks and fare increases will be necessary to maintain a balanced budget. The maintenance of current services level transit plan is higher than the constrained plan by the amount necessary to fund SCRTD's operations deficit.

The financially unconstrained transit plan incorporated all the system expansion envisioned by the Regional Transit Development Program. Although additional federal funds will be available for some of the added capital expenses, and fare revenues will be higher due to increased patronage, an additional $1,600-million will be needed to fund the program --an amount which could be raised by a 1/3 cent sales tax increase.

The financially constrained highway program is based on the assumption that the SCAG Region is able to obtain the legal maximum of capital improvements. The "expansion" unconstrained alternative calls for an additional $700-million in improvements. This sum could be raised by imposition of a 1.4 cent gasoline tax if all funds generated by the region were returned to it.

A financially constrained Streets and Roads program will not be adequate to fully fund maintenance and rehabilitation as shown to be needed in the maintenance of current services level plan. To continue Streets and Roads Programs at the historical level, maintenance/rehabilitation will require an additional $800 million, equivalent to a 1.6 cent gas tax increase.

introduction

2.0

2.0
INTRODUCTION

2.1
PURPOSE OF THE PLAN

The purpose of the Regional Transportation Plan (RTP) is two-fold. It must define the course of action Southern California should take to achieve a balanced transportation system for both goods and people, and it must satisfy several state and federal requirements.

2.1.1
Guide to System Management and Development

The Plan's main purpose is to guide the region in developing a balanced transportation system. This system must: 1) serve all population groups and satisfy critical transportation needs; 2) combine existing and new modes into a single, coordinated system; 3) protect the environment; 4) use available revenues for the greatest benefit; and 5) help guide the patterns of regional growth by supporting planned land uses.

The RTP is not a detailed blueprint of the transportation system of the future. Rather, it is a policy document which provides a framework for developing a regional system. The Plan identifies regional transportation goals and objectives; sets policies from which projects can be developed, and against which proposed projects can be evaluated; outlines actions to be implemented; and presents a plan for financing programs and projects.

Projects to be implemented in the short term are listed in the Transportation Improvement Program (TIP). The RTP (planning) and TIP (programming) complement one another. Policies and actions in the RTP form the basis for development of, and inclusion of projects in, the TIP. The TIP's specific projects implement the RTP in the short term.

2.1.2
Legal Requirements

The Plan responds to many legal requirements. Changes in the requirements often affect the degree of emphasis placed on specific issues in the RTP.

AB402 of 1977* requires that designated transportation planning agencies (e.g., SCAG) shall prepare a regional transportation plan

> "directed at the achievement of a coordinated and balanced regional transportation system, including, but not limited to, mass transportation, highway, railroad, maritime and aviation facilities and services. The plan shall be action-oriented and pragmatic considering both the short- and long-term future and shall present clear, concise policy guidance to local and state officials."

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* Chapter 1106, Statutes of 1977

The law requires the plan to have policy, action, and financial elements. Adoption procedures are described. The first plan is to be forwarded to the California Transportation Commission by October 1, 1978, and plans are to be adopted every two years thereafter.

SCAG has worked with Caltrans, other regional agencies, and local governments to develop draft guidelines on RTP preparation for the California Commission's adoption. While the California Commission has not yet adopted RTP guidelines, as required under law, the SCAG RTP will meet the requirements and procedures described in the drafted proposals.

Federal regulations, issued jointly by the Federal Highway Administration (FHWA) and the Urban Mass Transportation Administration (UMTA), also require the development of a transportation plan consisting of short-range and long-range elements. This plan resulted from a continuing, cooperative and comprehensive planning process by SCAG, local agencies, and the state, as required under federal law.*

SCAG is the agency responsible under federal and state law for carrying out the regional transportation planning process, and the 1978 RTP meets this responsibility in part.

The Plan addresses other legal responsibilities. For example, the Federal Clean Air Act requires that each state adopt a plan to achieve and maintain air quality -- using, when appropriate, transportation control measures. The 1978 RTP contains policies and actions directed at air quality. These, combined with pollution control programs for areas other than transportation, make up the regional element of the statewide plan to be prepared by the California Air Resources Board.

The Plan meets the UMTA requirement that transit services for the elderly and handicapped be improved.

The RTP will be the basis for development of the Transportation Improvement Program, and will be used in reviewing federal grant applications and projects using Local Transportation Fund (SB325/821) moneys.

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* These regulations detail responsibilities for metropolitan planning organizations. They also include instructions for the preparation of the Transportation Improvement Program, the Unified Work Program, and the Transportation System Management element, as well as procedures for certification. See also 23 USC 105, 134(a) and 135(b); 49 USC 1602, 1603(a), 1604.

2.2
PLANNING PROCESS AND PARTICIPANTS

In the SCAG region, every level of government and many special-purpose entities are involved in transportation planning. SCAG, the regional planning agency, is designated by the federal and state governments to coordinate transportation plans across geographic boundaries, and to coordinate transportation plans with other types of plans, such as those for land use and the environment.

2.2.1
Program Coordination

SCAG is responsible for regional planning in many areas besides transportation -- e.g., air quality, water quality, housing, and human services. These activities are coordinated. For example, each program area uses the Development Guide's growth forecast policy. And, as environmental planning has been emphasized, the many programs have begun joint planning activities. For example, a single Transportation Control Plan is being developed for both the RTP and the Air Quality Maintenance Plan (AQMP).

This year, inter-program coordination becomes particularly important since plans are now being developed or updated in a number of programs. Activities that involve the transportation program are discussed throughout the RTP. To reflect the final adoption of the plans in 208, Development Guide, Air Quality, and HOV,the 1978 RTP will probably be modified. This will be done through formal amendments, which will be adopted in January 1979.

2.2.2
Subregional Coordination

Coordination is required between agencies and across geographic boundaries. Subregional plans (Appendix F) were reviewed in preparation of the RTP for the following purposes:

- To identify major issues, problems, and concerns of the local agencies;
- To determine if there were any major inconsistencies between the policies, goals, and actions of the local agencies and the RTP;
- To ensure that the concerns of the subregional agencies are reflected in the RTP update.

2.3
PLAN CONTENT

The 1978 RTP is in two documents: (1) the Plan, and (2) an Environmental Impact Report.

Chapter 1 contains the summary.

Chapter 2 of the Plan covers the purpose of the plan, its process and participants, as well as an overview of Plan format.

Chapter 3 details major transportation issues and problems (the primary focus for the RTP's development).

Chapter 4 presents the comprehensive planning aims that underlie transportation goals, policies, and actions. Also given are the transportation goals and the objectives identified as targets for the Plan.

Chapter 5 contains both modal and multimodal policies, which lead to methods for realizing the Plan's goals and objectives.

Chapter 6 details programs and actions for either system management or system development. Those for Transportation System Management (TSM) are designed to make better use of the existing system. TSM actions are usually low-capital, and can be implemented in the short term. System development actions generally involve expanding or increasing the system's capacity, and are capital-intensive.

Chapter 7 describes the financial plan: the overall costs, revenues, and financial recommendations.

The Environmental Impact Report (EIR), published separately, summarizes the combined impact of all the recommendations in the 1978 Plan in six areas: 1) natural environment; 2) land use and urban form; 3) economy; 4) social environment; 5) air quality; and 6) energy. The overall Plan could affect regional development patterns, employment, auto mobility, and energy consumption. Individual recommendations could have local impacts on land use, social environment, air quality, and land values; these are also examined, so that the impacts of transportation improvements and management strategies can be seen. This system-level EIR does not replace detailed environmental studies of projects, or EIRs that address local impacts of specific proposals.

issues and problems

3.0

3.0
ISSUES AND PROBLEMS

As part of the Regional Transportation Planning process, future travel needs are projected, and the funds likely to be available for transportation are estimated. These data indicate that future transportation needs (1990-95) far exceed the region's ability to finance them, given present resources. Only policies that work to increase funding, reduce the rise of travel demand, and make better use of existing facilities can hope to resolve our transportation problems. The Regional Transportation Plan is prepared with the above concerns in mind. Specifically, the Transportation System Management and High Occupancy Vehicle actions are directed at more efficient use of the system we have, through better management, operating changes, and increased ridesharing.

SCAG's transportation planning recognizes eight key problem areas: (1) land use, (2) air quality, (3) energy, (4) access and mobility, (5) allocation of resources, (6) institutional responsibilities, (7) phased decision-making, and (8) technological and operational change.* The first four problems must be addressed to make the system compatible with the environment and provide efficient service. The others pertain to the responsibilities of developing the system over time. These eight problems dictate the approaches used to develop the system.

3.1
LAND USE

How do our land use decisions affect the provision of transportation facilities and services, and vice versa?

Of all the various factors which influence travel, the arrangement of land uses is probably the most important and yet the most difficult for which to measure travel demand influences.

The advent of the mass-produced automobile heralded a change in the geographic arrangement of urban uses. The detached single-family home was made possible, and as a result large areas of relatively low-density residential development were created, serviceable primarily by the auto.

These land-use trends facilitated by the automobile have worked in a self-sustaining cycle for many years. Recently increasing costs for both housing and transportation have created interest for infilling vacant urban land and the creation of subregions where activities such as work and home life could be accomplished without a long commute trip. The arrangement of land uses can have a dramatic effect on an ability to increase use of alternative means of transportation to the auto (i.e., transit, ridesharing, walking, bicycling) and thus conserve energy, reduce pollution, and reduce transportation user costs.

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* Critical Decisions Plan for Regional Transportation - 1974 (SCAG)

3.2
AIR QUALITY

How will changes in the transportation system contribute to attainment of clean air?

In one year of average driving, most cars emit over 600 pounds of pollutants. Short trips increase the pollution rate because there is more starting of a cold engine. Over 50% of vehicle hydrocarbon emissions, 60% of carbon monoxide, and 68% of nitric oxide emissions come from cars.

In Southern California, air pollution cost $350 million in 1970, in damage to health, crops and materials. It is dangerous for some people with respiratory ailments to walk or exercise when pollution is high. Even moderate amounts of pollution can cause headaches, rasping coughs, and burning eyes.

Although air pollution is down from the high in 1965, the region still exceeds federal and state standards for oxidants about two-thirds of the year, and the standards for carbon monoxide one-third of the year. Because of stricter exhaust standards, future vehicles will emit less hydrocarbons, carbon monoxide, and nitrogen oxides. After 1990, however, the State Air Resources Board says that rising miles of travel will cause another pollution increase.

3.3
ENERGY

What changes in the transportation system will best conserve energy?

Southern California burns 13.6 million gallons of gasoline and diesel fuel each day for transportation, more than double the rate of 20 years ago. Our 5-1/2 million cars use 60% of all our petroleum-based fuels. From 1956 to 1976, the average resident's gasoline consumption rose from .91 gallons to 1.3 gallons. Each person now consumes about 125 gallons more of petroleum each year than in 1956. Today, about 40% of these fuels are from <u>imported</u> crude oil, and the proportion is rising.

The supply of low-cost U. S. oil is running out. No one knows just how much is left, but the amount is finite. Varying estimates of the remaining domestic oil cause public confusion and detract from the vital need to stretch what we have. Because oil is still available and affordable, public reaction has been slow and uncertain; but as the U.S. depends more and more on foreign oil and the demand keeps growing, gasoline prices could jump to $1 a gallon within the next few years. At the same time, the U.S. becomes more vulnerable to foreign political actions.

3.4
ACCESS AND MOBILITY

How can the transportation system provide better access to opportunities, and equitably improve people's mobility?

Transit: For those who own an automobile, or have access to one, the present transportation system in the region offers a high level of mobility. And because of its speed and comfort, many people rely on the automobile as their sole means of transportation. However, there are still many people who are not able to drive, for reasons of age, income, health, or physical handicap. Since the public transit system does not offer service to all locations for all trip purposes, these people are often restricted in their ability to take advantage of education, shopping, employment, or recreational opportunities.

In some communities, transit service levels are inadequate, when compared with adopted service standards. In others, transfers between routes are difficult to make because of poor scheduling and routing of buses. For some, schedules are inadequate for off-peak hour services. Even when service levels are adequate, poorly designed vehicles and vehicle approach areas often act as barriers to the infirm elderly and the handicapped.

Auto: Southern California has a good road system, but nearly 10 million people use it, most of them during the morning and evening rush hours (6-10 a.m. and 3-7 p.m.).

During those hours, nearly 10% of freeways in Los Angeles and Orange counties operate stop-and-go at speeds under 20 miles per hour (mph). Another 20% of the freeways operate between 20 and 35 mph. Thus about 200 miles of freeway are severely or moderately congested. Many more miles of freeway operate between 35 and 55 mph with intermittent slowing -- which is often more annoying because of the suddenly changing conditions. Congestion usually extends 10 or 20 miles from downtown Los Angeles.

Congestion will get worse. Without highway improvement, in 1988 over 30% of the freeways will be congested at peak periods. Major freeways -- the Santa Monica, Santa Ana, San Diego, Hollywood and Ventura -- will average 20 mph for large portions of the route, raising travel times by 50-60%. The miles of congested freeway will double. Relief for this situation would require 900 new lane-miles of freeway.

3.5
ALLOCATION OF RESOURCES

How can our limited funds provide the greatest benefit, and how can additional funds be found?

Financial resources available to fund transportation facilities and services have not been able to keep pace with increasing travel demands.

The results have meant increased congestion on our highways, roads and streets, as well as unmet needs for transit users. Data reflecting anticipated revenues for the future continue to indicate a shortfall in funds compared to needs. Because of this, the Regional Transportation Plan must provide policies and actions that make the most efficient use of limited financial resources.

For example, the plan must (1) set carefully-considered priorities to be used in allocating resources, (2) emphasize projects that encourage more efficient use of the existing system, and (3) suggest legislative and regulatory changes that would affect either total resource availability, or the region's ability to use available resources more efficiently.

3.6
INSTITUTIONAL RESPONSIBILITIES

What institutions, having what responsibilities, can best provide and operate the system?

The fragmentation of responsibility for planning, programming, and implementation in transportation has become more of a concern in recent years. This is due primarily to increasing interest in multi-modal planning efforts, transportation systems management development, air quality planning, and the need to encourage ridesharing techniques. All of these require a high degree of interagency coordination and understanding. The arrangement of institutional responsibilities also has a major effect on the efficiency with which a particular service can be offered, or a facility constructed.

Recent legislation (AB 1246) has added County Transportation Commissions in Los Angeles, Orange, San Bernardino, and Riverside Counties, while AB 402 has created a State Transportation Commission in lieu of four previous transportation-related groups (Highway Commission, State Transportation Board, Aeronautics Board, and Toll Bridge Authority). These changes and others were brought about by the need to continually refine institutional arrangements so as to best meet transportation needs. Continual thought will be needed in this issue area.

3.7
TECHNOLOGICAL AND OPERATIONAL CHANGE

How can the system best incorporate new technologies?

Transportation planning and development take place in a dynamic environment. Changes in transportation technology occur frequently, as is evidenced by the development of fuel-efficient autos. Other improvements, such as the personalized rapid transit systems and the high-speed rail systems, are on the planning horizon. Although some future options appear to provide attractive alternatives to existing modes, there is still considerable uncertainty about them. If these emerging technologies are incorporated into the regional transportation system without adequate development, there is a risk that they may not function properly. If existing technology is used to the exclusion of new technologies, there is a risk that an obsolete system will be built.

3.8
PHASED DECISION-MAKING

How can decisions meet current transportation needs and yet keep our options open for the future?

One difficulty of planning is making the proper choices in the face of uncertainty. Transportation planning is especially sensitive to uncertainty because of its dependence on technology, the large capital and operating expenditures required by transportation systems, and the lengthy lead time between planning and implementation. In the past, master plans were considered the most reasonable way of reducing uncertainty in decision-making. However, it has been found that the longer the planning horizon, the greater the degree of uncertainty.

Another difficulty is that once a particular direction, scenario, mode or technology has been chosen, other options may inadvertently be foreclosed. The process must be structured to be responsive to existing conditions yet flexible in the face of change. Existing needs must be planned for in a way that does not foreclose future options.

goals and objectives

4.0

4.0
GOALS AND OBJECTIVES

The Regional Transportation Plan's goals and objectives set the framework within which specific policies, actions, and plans are formulated. (Goals identify public desires which are theoretically attainable, and provide principles for the development process. Objectives are more precise and quantifiable steps to achieve in advancing toward the goals.) The transportation goals and objectives outlined in this Plan support the goals and policies of the Regional Development Guide, which is the six-county comprehensive plan.

4.1
COMPREHENSIVE GOALS OF THE REGION

The Regional Development Guide is SCAG's comprehensive guide for regional growth and development. As such, it deals with a broad range of issues, including land use, employment, population, housing, and environmental quality.

To guide growth and change, SCAG has adopted both a broad set of goals and policies (set forth in Goals and Policies, adopted in 1973), and specific, quantified growth forecast numbers (The SCAG-76 Growth Forecast Policy -1976) showing the preferred distribution of growth for specific time increments.

The Development Guide goals and policies provide basic guidance for, and are supported by, SCAG's transportation planning activities. The following is a summary of the goals and policies that are particularly relevant to transportation planning.

- To assure opportunity for the experience of a variety of lifestyles within the region and within each of its major geographical sub-units.
- To create subregions which have a balance of service facilities, employment, and housing types.
- To guide the development of the region toward a form which provides the necessary balance between the region's manmade and natural systems.
- To ensure housing opportunities in proximity to jobs and daily activities.
- To encourage the maintenance of sound and viable residential neighborhoods and to increase the rehabilitation of blighted and declining neighborhoods.
- To assure a variety of economic opportunities within each of the major sub-units of the region consistent with its natural and existing resources and potential resources.

- To achieve a balanced distribution of open space throughout the region which meets the needs of inhabitants...and which will prevent some of the adverse effects of urban sprawl and other forms of inappropriate development.

- To eliminate the degradation and pollution of the region's basic resources -- water, air, and land.

- Growth throughout much of the region should be of low density character, with specified urban areas experiencing higher density development in accordance with local and regional plans.

- Development within existing urban areas, rather than the urbanization of new land, should be encouraged as much as possible.

The SCAG-76 Growth Forecast Policy was adopted in December, 1975, and modified slightly in November, 1977. The Growth Forecast depicts future land uses, levels of population, housing and employment consistent with SCAG's goals and policies. The SCAG-76 Forecast is currently under review. Six growth forecast alternatives have been programmed for analysis purposes and a draft SCAG-78 Forecast is expected in the summer of 1978. An adopted new forecast is scheduled in the winter of 1978-1979. These six alternatives are being assessed from a transportation perspective.

The policies from the SCAG-76 Growth Forecast Policy particularly relevant to transportation planning include the following:

- Encourage growth in and adjacent to existing urban areas.

  This policy applies particularly to those areas where the existing infrastructure -- that is, transportation systems, utilities, schools, private investment, etc. -- is not used to capacity. This would also encourage recycling of the housing stock, preserve open space and agricultural lands in outlying areas, and reduce long-distance home-to-work travel -- thereby reducing energy use and alleviating air pollution.

- Avoid densities that would overtax the existing and currently planned infrastructure.

- Preserve, wherever possible, the region's natural resources and desirable land uses, particularly prime agricultural lands.

- Balance population with jobs within each major subregion.

  This policy is intended to reduce home-to-work commute trip distances, and to cause a more equitable distribution of the employment tax base.

4.2
REGIONAL TRANSPORTATION GOALS

Five transportation goals, adopted and incorporated into the Regional Development Guide in 1973, provide the framework for planning the transportation system and suggest general implementation strategies:

- TO DEVELOP A TRANSPORTATION SYSTEM WHICH WILL SUPPORT THE COMPREHENSIVE GOALS OF THE REGION, TAKING INTO ACCOUNT THE EFFECT OF MODE SELECTION, LOCATION, AND TIME UPON THE PHYSICAL, SOCIAL, ECONOMIC, AND ORGANIZATIONAL ENVIRONMENT.

- TO CREATE A BALANCED TRANSPORTATION SYSTEM INTEGRATED WITH PLANNED LAND USE TO PROVIDE EFFECTIVE MOBILITY FOR ALL PEOPLE AND EFFICIENT AND ECONOMIC MOVEMENT OF GOODS.

- TO MINIMIZE THE NEED FOR LONG DISTANCE INTRAREGIONAL TRAVEL, PARTICULARLY WORK TRIPS, BY GUIDING THE DEVELOPMENT OF THE REGION TO CREATE SELF-SUFFICIENT METROS HAVING BALANCED SERVICE FACILITIES, EMPLOYMENT, AND HOUSING.

- TO DEVELOP FOR THE REGION A TRANSPORTATION SYSTEM COMPATIBLE WITH THE ENVIRONMENT, USING THE AVAILABLE RESOURCES WISELY, PROMOTING THE AESTHETIC BEAUTY OF THE REGION, AND AVOIDING UNDESIRABLE ENVIRONMENTAL CHANGES.

- TO DEVELOP A TRANSPORTATION SYSTEM THAT IS FINANCIALLY, LEGALLY, AND POLITICALLY FEASIBLE, HAS BROAD PUBLIC SUPPORT, AND HAS A COMMITMENT TO ITS IMPLEMENTATION BY ELECTED OFFICIALS AND THOSE PROVIDING TRANSPORTATION SERVICES.

4.3
TRANSPORTATION PLANNING OBJECTIVES

Four key objectives -- steps toward achieving the goals -- have been formulated to date:

- REDUCE EMISSIONS FROM MOBILE SOURCES IN THE SOUTH COAST AIR QUALITY MAINTENANCE AREA BY THE TONNAGES SHOWN IN TABLE 4.3-1.

- CONSERVE TRANSPORTATION ENERGY IN THE REGION BY THE AMOUNTS SHOWN IN TABLE 4.3-2.

- INCREASE TRANSIT RIDERSHIP, CURRENTLY 3.36%, TO 6% OF ALL PERSON-TRIPS BY 1990.

- INCREASE THE NUMBER OF MULTI-OCCUPANT LIGHT-DUTY VEHICLES (I.E., CARPOOLS, VANPOOLS, ETC.), CURRENTLY 2 MILLION, TO 3 MILLION BY 1990, FOR BOTH WORK AND NON-WORK TRIPS.

These objectives are discussed in detail below. Objectives may change as a result of related planning efforts. Changes resulting, for example, from the Air Quality Maintenance Planning effort and the Ridesharing Program will be amended into the RTP in January, 1979.

4.3.1
Air Quality Objective

The following air quality objective, adopted in the 1977 RTP, is being re-evaluated in the development of the AQMP (see Section 6.1.3):

- o Reduce emissions from mobile sources in the South Coast Air Quality Maintenance Area by the tonnages shown in Table 4.3-1.

EMISSION-REDUCTION OBJECTIVES
SOUTH COAST AIR QUALITY MAINTENANCE AREA

EMISSION-REDUCTION OBJECTIVES (TONS PER DAY)				EQUIVALENT REDUCTION OF LIGHT-DUTY VEHICLE (LDV) MILES TRAVELED
YEAR	NMHC	NO_x	CO	
1980	13	16	132	5
1985	15	17	76	10
1990	21	23	112	15
1995	25	31	135	20

NHMC - Non-Methane Hydrocarbons. HO_x - Nitrogen Oxides. CO - Carbon Monoxide.
TSM - Transportation System Management.

This RTP objective shows tons-per-day reductions in mobile-source emissions. Emission amounts should be related to some measure of mobility, and since there is a rough but usable correlation between emissions and the miles traveled by light-duty vehicles, a percentage reduction in VMT can serve as an indicator of air quality improvement.

For some off-road vehicles, however, emissions are not directly linked to miles traveled. For this class of mobile sources, we envision a reduction in activity which would produce the desired reduction in emissions. So, to keep the measure standard, this emission reduction is stated as equivalent VMT.

The 1977 RTP adopted a 20% emissions-reduction objective, which would keep VMT at the present level over the next twenty years. (In the 20 years 1975-1995, our vehicle fleet's VMT is expected to increase about 1% a year, or 20% by 1995. By reducing the projected 1995 VMT by 20%, we maintain the present VMT level despite an increase in the population and the person-trip rate.)

table 4.3-1

For the 1978 RTP update, a 40% emissions-reduction study objective was also established for consideration. This objective would maintain present levels of emissions from all mobile sources, both on- and off-road. Equivalent VMT (explained above) was used to analyze the needed reduction in activity/emission levels. Reducing the projected 1995 equivalent VMT by 40% would maintain the present level of emissions from VMT plus off-road-vehicle activity.

4.3.2 Energy Objective

- Conserve transportation energy in the region by the amounts shown in Table 4.3-2.

FUEL CONSERVATION OBJECTIVES
(MILLIONS OF GALLONS OF GASOLINE PER YEAR)

YEAR	PROJECTED CONSUMPTION OF FUEL BY LIGHT-DUTY VEHICLES	FUEL SAVINGS OBJECTIVE	PERCENTAGE SAVED
1980	5,270	263	5
1985	4,650	465	10
1990	4,240	424 to 636	10 to 15
1995	4,170	417 to 834	10 to 20

Fuel savings for 1990 and 1995 are shown as a range, since they will depend on the measures used to reduce emissions. To the degree that emissions are reduced by reducing VMT, a corresponding amount of fuel will be saved. It is expected that the VMT projected for 1985 will be reduced by 10%. Beyond 1985, emissions may be further reduced either by reducing VMT even more, or by using other measures (e.g., imposing controls on sources not now controlled). The range of fuel savings shown corresponds with these possibilities.

Note that the LDV consumption projections in Table 4.3-2 are based on two assumptions: 1) that there will be a normal vehicle replacement cycle with vehicles meeting the federal fuel economy standards, and 2) that VMT will continue to increase at current trends. Thus the fuel savings objectives for 1980 through 1995 shown in Table 4.3-2 are in addition to projected savings to be realized by meeting the federal fuel economy standards for new vehicles.

table 4.3-2

4.3.3
Transit Ridership

- o Increase transit ridership, currently 3.36%, to 6% of all person-trips by 1990.

Currently, about 3.36% of person-trips are by transit in the region. If the 6% objective is to be met, therefore, significant improvements in transit service will be required. Estimates of ridership for the Regional Transit Development Program indicate that this program would bring the regional transit ridership up to about 1.8 million by 1990. This is equivalent to a 4.4% modal split. To reach the transit objective of 6% modal split, or 2,5000,000 transit trips, many of the ridesharing strategies defined in the multi-modal section of the RTP must be successfully implemented. Such strategies as fare policy changes, parking management, employee subsidies (free bus passes), information and marketing, etc., will have to be implemented.

This objective is discussed further in Section 6.3.

4.3.4
High-Occupancy Light Duty Vehicle Ridesharing Objective

- o Increase the number of multi-occupant light-duty vehicles (i.e., carpools, vanpools, etc.) currently 2 million, to 3 million by 1990, for both work and non-work trips. NEW

While the major thrust of the ridesharing effort is aimed at the work-trip during morning and evening peak hours, it is believed that significant contributions toward achieving established regional mobility, air quality, and energy goals will be realized only if we can develop and implement a more comprehensive program. For this reason, we define a ridesharing objective in terms of a 24-hour average work-weekday, including all trip purposes. Given this more inclusive framework, it is estimated that the number of existing light-duty vehicles defined as multi-occupant (24-hour, all trip purposes) will need to increase from 2,000,000 in 1976 to about 3,000,000 in 1990.

policies

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POLICIES

The following sections list the transportation policies for the region (multi-modal, auto, transit, airports, non-motorized, maritime and rail, finance, and institutional arrangements).

New and dropped policies are listed as such in the right-hand margin. All others are currently adopted.

5.1
MULTI-MODAL POLICIES

1. THE REGIONAL TRANSPORTATION SYSTEM SHALL SERVE ALL TRIP PURPOSES IN AN EQUITABLE MANNER ACCORDING TO NEEDS. ASSURANCES SHALL BE SOUGHT FROM TRANSPORTATION PROVIDERS THAT PROPOSALS FOR IMPROVEMENTS SHALL (1) PROMOTE THIS EQUITABILITY AND (2) CONSTITUTE INTEGRAL PARTS OF A COMPREHENSIVE SYSTEM, CONSISTENT WITH THE REGIONAL TRANSPORTATION PLAN. TRANSPORTATION MODES, SERVING DIFFERENT FUNCTIONS AND AREAS, SHALL BE COORDINATED TO PROVIDE A CONTINUOUS FUNCTIONAL SYSTEM.

2. THE REGIONAL TRANSPORTATION SYSTEM SHALL EQUITABLY SERVE BOTH PEOPLE AND GOODS MOVEMENT, PROVIDE EFFECTIVE SERVICE TO TRANSIT DEPENDENTS, AND SHALL INCLUDE ALTERNATIVE SERVICE TO AUTO TRAVEL.

3. THERE SHALL BE A BALANCED TRANSPORTATION SYSTEM, PROVIDING IMPROVED TRAVEL OPPORTUNITIES AT ALL SCALES, AND ACCOMMODATING EXISTING TRAVEL DEMANDS AS A PRIORITY, BOTH IN URBAN AND RURAL AREAS. IMPROVEMENTS SHOULD BE PROVIDED IN PROPORTION TO THE DISTRIBUTION OF TRIPS BY LENGTH AND PURPOSE, UPGRADING SERVICE IN METROPOLITAN AREAS AND, IN PARTICULAR, WITHIN COMMUNITIES.

4. IMPLEMENTATION PROGRAMS SHALL BE BASED ON A PHASED DECISION-MAKING PROCESS, WHEREIN EXPERIENCE AND EVALUATION SHOULD GUIDE THE PROGRESSION OF DECISIONS. FUNDING PROGRAMS SHALL ALSO FOLLOW A PHASED DECISION-MAKING PROCESS, WHEREIN A MULTI-MODAL CONCEPT SHOULD BE FOSTERED AND SHOULD NOT BE BIASED IN FAVOR OF ANY ONE MODE OR PARTICULAR TYPES OF FACILITIES OR SERVICES. DECISIONS ON IMPROVEMENTS SHALL TAKE INTO ACCOUNT THE EFFECTIVE USE OF ALL AVAILABLE MODES AND FACILITIES, AND SHALL GIVE SIGNIFICANT SUPPORT TO SUCH IMPROVEMENTS THAT PROVIDE BENEFITS FOR THE ENVIRONMENT, IN PARTICULAR, AIR QUALITY AND ENERGY.

5. PUBLIC TRANSPORTATION SYSTEMS OF THE REGION SHALL BE SIGNIFICANTLY IMPROVED. SUBSTANTIAL INCREASES IN PUBLIC TRANSIT FUNDING SHALL BE SOUGHT, WITH PARTICULAR EMPHASIS ON OPERATING FUNDS. THE DEVELOPMENT OF AN INITIAL PORTION OF A GUIDEWAY TRANSIT SYSTEM(S) SHALL BE SUPPORTED, AS WELL AS OTHER TYPES OF SYSTEMS THAT PROVIDE SATISFACTORY JUSTIFICATION. BUS SERVICE SHALL BE IMPROVED THROUGH MODIFICATION OF THE EXISTING SYSTEM, CONSISTENT WITH THE SHORT-RANGE TRANSPORTATION PLAN.

5.1.1
System Planning Policies

6. Use the Regional Development Guide and the currently adopted growth Forecast Policy* as a guiding criterion in providing transportation service.

7. Recognize existing local land use plans in the formulation of transportation decisions.

8. Project implementation of the Regional Transportation Plan must be undertaken consistent with the requirements of the California Coastal Act of 1976.

- o All plans for transportation services shall include methods to provide transportation services for transit-dependent persons to include persons with developmental disabilities, the physically disabled, the elderly, the low-income, and the young. DROPP (see Trans

- o Subregional transportation plans must be prepared using a minimum of a thirty-day review period from publication to public hearing. A minimum of fifteen days must be provided between the close of the review period and plan adoption. DROPP

- o Updates, if any, of subregional transportation plans shall be submitted to SCAG by August 1 of each year. DROPP

- o The Regional Transportation Plan must include transportation activities of regional significance. (Existing definitions are found in 4.6 for Highways and 4.4 for Aviation). DROPP

- o Consider growth impacts and transportation requirements of goods movement modes and facilities in refinement of the Regional Transportation Plan. Goods movement modes and facilities include rail, truck, ship, pipeline, and air modes as well as major terminal and warehouse facilities. (See Maritime and Railroad, Section 4.7) DROPP

9. Travel corridors as discussed in AB 1246 will be identified in the 1979 RTP. Assignment of priorities for corridor planning will also be included.

- o Coordinate transportation-related air quality policies and actions with Air Quality Maintenance Planning activities. DROPP

10. Future regional plan updates should include more specific consideration and recommendations on highway development relative to: growth policy; VMT reduction; role of highways in terms of auto, transit, goods movement, and other uses.

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*SCAG-76 Growth Forecast Policy, January 1976.

11. SCAG should serve as a coordinating and facilitating agency for the development of region-wide policies on transportation issues, and positions on state and federal transportation legislation, regulations and programs. NEW

12. SCAG should actively participate in the formulation of state-wide positions on transportation issues affecting local and regional agencies. NEW

13. Communication between the private sector and all public bodies involved in decisions on transportation issues should be actively encouraged, particularly in the early stages in the development process. NEW

5.1.2
Transportation System Management Policies

14. The transportation system shall be managed to increase operational efficiency, conserve energy and space, reduce air pollution and noise, and provide for mobility and accessibility.

15. Priority shall be given to low-cost transit and highway improvements.

16. Avoid undesirable duplication of transit services.

5.1.3
Ridesharing Policies

The general policies below guide the current Ridesharing Program. When the Ridesharing Plan is completed, policies may be added, deleted, or revised. Previously, these policies appeared in the Multi-Modal, Auto, and Transit sections.

17. Implement the freeway exclusive lanes and freeway ramp metering program for buses and carpools where consistent with policies and criteria in the Regional Transportation Plan. Exclusive lane projects should:

    - have local support.
    - be operationally safe.
    - be capable of serving and encouraging carpooling, vanpooling, and transit use.
    - serve as an incentive and benefit all freeway users.
    - be undertaken where a freeflow condition cannot be reasonably achieved.

18. In designing and building new facilities, include exclusive bus, van, and carpool lanes.

19. Increase the efficiency of freeway lanes by including by-pass lanes for high-occupancy vehicles on at least 50% of the metered freeway ramps.

20. Encourage cities and counties to include exclusive lanes for high-occupancy vehicles on major arterials for peak-hour travel.

21. Encourage local governments to develop parking strategies that increase the use of high-occupancy vehicles.

22. Encourage employers to provide bus passes for employees, sponsor carpools, vanpools, and subscription bus service, and consider using flex-time.

23. Support an extensive and coordinated marketing program to improve the image of ride-sharing.

24. Identify the need for, and support development of, public and private paratransit services, as well as needed changes in legislation.

25. Support the use of park-and-ride lots as transfer points connecting feeder transit and bus-on-freeway service.

26. SCAG endorses construction of I-105 (with the provision that I-105 will be a freeway transitway consistent with the Regional Transit Development Program, with ramp metering and bypasses where consistent with appropriate planning).

5.1.4
System Development Policies

27. Provide transportation for necessary and anticipated travel between metropolitan areas but do not encourage an increase in long-distance travel.

28. Emphasize metropolitan and short-distance transportation improvements consistent with other Plan policies.

29. Encourage development of transportation services appropriate for rural areas.

30. Add new transportation facilities and services when it can be shown that: the demand for the facility and/or service is reasonable and anticipated; improved management of the transportation system cannot accommodate the demand; there exist adequate capital and operating funds to finance the improvement; their use does not take away from existing service; the proposed improvements are cost-effective; and social, environmental, and other objectives are met or negative impacts in these areas are mitigated.

31. Stage transportation planning so that policies guiding long-term transportation improvements are adopted. For hardware and route decisions, consider for adoption only those improvements which can be implemented in the foreseeable future.

5.1.5
Transportation/Air Quality Policies

Policies within this section will be modified upon adoption of the AQMP. Previously, these policies were in the Multi-Modal, Auto, and Transit sections.

34. Transportation systems planning within the SCAG region shall work cooperatively with the regional Air Quality Maintenance Planning process to attain federal and state health standards for ambient air quality at the earliest achievable date, and to maintain the standards thereafter. NEW

35. SCAG supports and encourages technological improvements, particularly for heavy duty and off-road vehicles, as one means of moving toward attainment of federal and state air quality standards.

36. SCAG supports and encourages the state legislature to move rapidly toward implementation of a mandatory annual inspection/maintenance program for light-duty vehicles in the region.

37. Air pollution from transportation sources shall be reduced by: shifting a substantial number of single-passenger auto trips to carpools, transit, and other modes; meeting the vehicle emissions inspection and maintenance program; considering extension of emissions standards to off-road vehicles and other presently unregulated sources.

38. Continue the existing transportation control program with the objective of reducing emissions by reducing vehicle miles traveled.

39. In conjunction with counties and cities, continue planning efforts on preferential facilities for high-occupancy vehicles on major arterials during peak hours; and develop directional flow experiments using one-way traffic flow on selected major arterials to accommodate peak hour traffic and decrease travel time.

40. Support a "balanced" approach to air quality and energy planning based on an objective assessment of the automobile's contribution to regional air pollution and energy consumption, relative to other pollution sources and energy users.

41. Reduce automobile emissions and fuel consumption by developing specific programs designed to:

    1) reduce the region's reliance on the automobile,
    2) improve travel conditions by relieving congestion,
    3) increase the average occupancy of the automobile.

42. Reduce automotive emissions and fuel consumption by actively encouraging improvements in the technical characteristics of the vehicle.

43. Encourage local governments to develop parking strategies that will encourage the use of transit and carpools; relieve traffic circulation on local streets; supplement other transportation and land use measures designed to improve air quality and conserve energy; insure coordination of transit and paratransit developments with parking management strategies.

5.1.6
Energy Policy

44. Transportation energy requirements shall be minimized by: NEW

a) supporting planning, programming and implementation efforts which conserve energy.

b) encouraging technological changes that conserve energy.

c) educating users of transportation energy about the costs of various modal alternatives.

45. Energy consumption requirements of transportation shall be minimized by: meeting the Federal fuel economy standards though at least 1980; shifting a substantial number of single-occupant auto trips to carpools, transit, and other modes; giving strong support only to investments in modes and facilities that will result in energy-efficient travel; reducing consumption of scarce and expensive energy fuel.

46. Emphasize reduction of emissions and conservation of energy in review of grant applications and subregional programs for acquiring, replacing, or operating transit and publicly owned vehicles.

47. In improvement of the existing transportation system, priority shall be given to those means of travel which are energy-efficient and least polluting.

5.2
AUTOMOBILE POLICIES*

1. Regional, subregional, and local agencies shall emphasize efficient automobile use (to lower emissions, save energy, and reduce congestion) by these means:

   a) Encourage ridesharing.

   b) Develop and implement traffic-operations improvements to speed and manage the flow of motor vehicles (i.e., signal synchronizing, channeling, reversible lanes, etc.) to increase efficiency.

   c) Encourage technical improvements to vehicles.

   d) Encourage local governments, major employers, and universities to develop parking strategies that increase ride-sharing and supplement other transportation and land-use measures to improve air and conserve energy.

5.3
TRANSIT

Service

1. SCAG encourages compliance with the local and express bus service standards. (Rail, rural, and paratransit service policies to be developed.)** NEW

2. The priorities for funding transit services are as follows: NEW

   first priority - maintenance of existing levels of services, including present local and express services (this assumes existing services are needed).

   second priority - improvement of services on over-crowded lines.

   third priority - improvement and/or expansion of services in deficient areas, as defined by the adopted local service standards.

   fourth priority - improvement and/or expansion of express services, using the express service standards.

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* Some of the auto-related policies can be found in the HOV, TSM, and air quality sections.

** See Appendix A for local and express service standards.

3. The following guideway projects are of equally high priority for Proposition 5 funding of planning and preliminary engineering costs:

   - The Southern California Rapid Transit District and CALTRANS Regional Transit Development Program "Starter Line". (In addition to previous planning and preliminary engineering.)

   - The City of Los Angeles downtown people-mover.

   - The City of Los Angeles Department of Airports people-mover.

4. SCAG, in cooperation with other agencies, should identify areas where paratransit projects would supplement existing and proposed transit operations. Current legal restrictions to the provision of these services should be analyzed for possible removal.

5. Efforts to upgrade service or add service shall be supported and priority for such service improvement shall be given to improvements in areas where transit service is substandard and in areas of greater than normal transit dependency.

6. SCAG shall identify methods to allow substantial involvement by communities in plan development and in the decision-making process. In conjunction with this policy, identification of transportation needs at the community level should be incorporated as part of the planning process undertaken by the transit districts.

7. Plans for regional transit systems shall include consideration of service to the major airline airports.

Coordination

8. Transit and paratransit operators shall coordinate their planning and programming with other agencies, including city and county traffic and engineering departments. NEW

   This can be accomplished by:

   a) efforts to bring providers of similar transportation services together to discuss coordination and consolidation strategies;

   b) the development of joint powers agreements and contractual arrangements between service providers;

   c) requiring applicants for new paratransit operations to show that existing resources are inadequate, and explain how new services will be integrated with existing services.

Elderly and Handicapped

9. The elderly and handicapped have the same right as other persons to travel and to utilize regular public transportation services. Persons with developmental disabilities, the physically disabled and the elderly shall be provided a continuum of transportation services according to need and their degree of transportation disability.

10. Employ the following policies for provision of transportation services to the elderly and handicapped:

    - As a long-range policy, adopt and support objectives intended to facilitate the transition to fully accessible public transportation services.

    - As an interim measure, support the implementation of alternative services to persons who are physically unable to board, transfer or maneuver on and between existing transit systems.

11. Support the coordination or consolidation (where appropriate) of transit and of paratransit services to provide more effective, efficient and accessible transportation services.

12. All plans for transportation services shall include methods to provide transportation services for persons with developmental disabilities, the physically disabled and the elderly.

13. SCAG shall use the following in defining groups requiring special transportation assistance:

    - the transportation handicapped (including wheelchair users, semi-ambulatory persons, and the elderly)

    - lack of auto availability

    - persons at or below the poverty level as defined by the U.S. Census Bureau

14. For transportation planning purposes, transportation-handicapped persons are those individuals who, by reason of illness, injury, congenital malfunction, developmental disabilities or other permanent or temporary incapacity or disability, including those who are non-ambulatory wheelchair bound and those with semi-ambulatory capabilities, are unable without special facilities or special planning and design to utilize mass transportation facilities and services as effectively as persons who are not so affected.

15. Elderly persons are individuals 60 years of age and older.

Safety

The following proposed policies have been developed from a SCAG study, Transit Safety and Security: A Design Framework:

16. Support and encourage a greater awareness that crime prevention through physical planning can play an important part in the reduction and deterrence of criminal activity in transit facility design.

17. Encourage development of uniform regional transit traffic and parking regulations as well as uniform transit signing regulations for furthering transit safety and security.

18. Suggest to transit operators the desirability of developing written procedural guides to inform transit employees on how to conduct themselves during any safety and security incidents.

19. Encourage transit operators to jointly develop and adopt a uniform standardized incident-recording precedure.

20. Support and encourage an evaluation of emergency communication equipment and radio frequencies in order to design better communication systems that will help decrease response times by public safety agencies

21. Support and encourage public safety agencies to review transit designs for security needs prior to application for building permits.

Procedural

22. Each public transit operator will prepare a Short Range Transit Plan (SRTP) as required to meet federal guidelines. NEW

23. SCAG will determine the merit and suitability of TIP projects according to the following criteria:

    (1) Conformance with applicable statutes and regulations promulgated by the relevant granting agency or authority.

    (2) Conformance with policies and guidelines incorporated into the Regional Transportation Plan.

    (3) Conformance with transit system efficiency standards and guidelines which are developed and adopted by SCAG as Transit Service Policies.

    (4) Conformance with stipulations included in the SCAG/Public Transit Operator Memorandum of Understanding.

24. Establish a plan and maintain programs for the review of existing facilities for possible modifications to increase accessibility.

25. SCAG shall adopt criteria consistent with SB 1687 for the evaluation of claims for community transit services. Such criteria shall include:

    - priority for group requiring special transportation assistance
    - innovative and efficient service
    - the level of impact of the service in meeting transportation need
    - the level of impact on existing taxi and transit services.

26. SCAG shall also provide for an alternative finding, based upon the evaluation of all claims submitted, that some or all of SB 1687 funds could be used to better advantage for Article 4 purposes in the development of a balanced transportation system.

27. SCAG's endorsement of applications for state and federal transit funding shall be contingent upon implementation of the revised Memorandum of Understanding and consistency with the Regional Transportation Plan.

o SCAG shall support the implementation of the interim elderly and handicapped program recommendations. DROPPED

o As of March, 1977, SCAG approval of transit grant applications shall be based, in part, upon the existence of an approved interim program in the current subregional transportation plan for the handicapped. DROPPED

o Adopted Transit Service Policies shall be used to measure the level of transit need in the region. DROPPED

5.4
HIGHWAY POLICIES

1. Highways of regional significance are state highways only, including highways necessary to complete the Interstate system.

2. Maintain the 55-mph speed limit within urbanized areas of the region for all vehicles except emergency vehicles.

3. The use of the existing highway system should be maximized through traffic operational improvements.

4. Missing link projects planned for the regional freeway network should be completed to achieve optimum system effectiveness in consistency with the Regional Transportation Plan.

5. Construction of sound barriers on freeways that pass through previously established residential areas will be a high priority program.

6. Priorities for funding highway programs will be:

   First, maintenance and rehabilitation;
   Second, operational improvements;
   Third, construction of new facilities.

o SCAG endorses construction of projects in the FY 77 Highway Commission budget and the FY 78 Highway Commission budget as of April, 1977. DROPPE

o SCAG endorses project development activity on projects approved as part of the Regional Transportation Plan. This also includes the project categories of maintenance, rehabilitation, operational, safety, and compatibility improvements. DROPPE

o SCAG endorsement of project development activity on the CALTRANS work plan (which includes the 1976 CALTRANS 6-year planning program, as approved by the Highway Commission in October, 1976, and several additional projects) is made with this understanding: that prior to CHC approval of the next multi-year planning program and/or annual budget, CALTRANS will report to the TUC and Executive Committee as to how they actively considered the adopted RTP in the formulation of that multi-year planning program and annual highway budget; and that if CALTRANS cannot follow the RTP recommendations, that this report justify the reasons for not being able to do so. DROPPE

7. Regional priorities for missing links and new highway construction will be based on subregions' recommended lists. NEW

8. In accordance with AB 402, the RTP shall be the guiding document for State Highway programming in the SCAG region. NEW

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* Some of the Highway Policies are found in the Ridesharing Section.

5.5
AIRPORT SYSTEM POLICIES

Planning

1. The Regional Airport System Plan must be based on a continuing planning process rather than a binding long-term commitment and the Plan should be reviewed at least every two years.

o SCAG's primary objective in aviation planning must be in the finite definition of areas of forecast public demand for air services and facilities. DROPPED

2. SCAG's primarily responsibilities in aviation planning are to NEW
a) forecast travel demand
b) coordinate system design
c) organize institutional arrangements.

3. Implementation, as well as continuing review and revision, of the adopted Regional Airport System Plan must be integrated with development and implementation of the SCAG Regional Transportation Plan and also with state and federal transportation plans, to assure the coordination of elements and modes of regional, state, and federal transportation system.

4. SCAG should act as a convening agency to bring representatives of airlines, airport owners, communities, the Department of Defense, the Federal Aviation Administration, and other regulatory agencies together on a regular basis.

5. SCAG Regional Transportation Plans and updates will include specific consideration and recommendations relating to airport access; the economic impact of meeting or not meeting projected aviation demands; the development of airport requirements within a comprehensive regional framework; and the reexamination of aviation forecasts.

6. The initiative for implementation of airport system plans in the 1978 RTP remains with local communities, state and federal agencies, and aviation industry organizations.

7. Local decision-makers must be involved in independent airport authority and commission decisions.

8. Methods should be sought for spreading the financial burden of constructing any major new general aviation facilities among all areas in the region to be served by that facility.

9. As much airspace as possible should continue to be made available for general aviation flying in the Los Angeles Basin.

10. If conflicts should arise in the planning, development, or operation of the general aviation portion of the regional airport system, priority normally should be given to regionally significant airports over locally significant ones.

11. County airport land use commissions should encourage land use compatibility for both present and projected future airport activity.

12. Measures to assure permanent land use compatibility must be included in the planning and development of new airports, including a high priority for land acquisition.

13. Incompatible land uses around general aviation airports must be prevented.

14. The State of California and SCAG definition of open space shall be used in evaluating airport impact upon open space. This definition is "land or water which is essentially unimproved and is devoted to the following open space uses:

    - Preservation of natural resources
    - Managed production of resources
    - Outdoor recreation
    - Public health and safety."

15. The areas of the region which will have the greatest deficiencies in air transportation service by the late 1980s should begin now to formulate policies concerning these deficiencies. Delayed actions or decisions not to act may cause severe inconvenience to the public. SCAG will provide all possible assistance and encouragement to local public agencies to preclude such delays.

16. No existing large civil or military airport should be converted to a non-aviation use without realizing that such action eliminates one of the options for provision of future airline service.

17. Operators of existing airports where established policies now limit the levels of air transportation service should frequently re-evaluate these policies in light of improvements and application of noise reduction technology.

18. Planning for allocation of traffic among existing airports and for the development of major new airports should consider the relative ability of airports to comply with the California Environmental Standards or superseding Federal Regulations. NEW

19. The definition of Airports of Regional Significance for the Regional Transportation Plan shall be as follows:

    The term regional is applied to any airport that serves a major portion of region-wide air traffic activity, that has CAB or PUC certificated service, or that provides service to a portion of the region which otherwise would be isolated from the air transportation system. The criteria used for definition can be found in Appendix G.

Management

20. The six major airline airports in the regional airport system today should be expanded to the maximum extent currently planned with the greatest emphasis on expansion of Los Angeles International and Ontario International Airports to 1985.

21. At Hollywood-Burbank, Long Beach, Orange County, and Palm Springs Airports, the primary emphasis should be placed on achieving higher load-factors on commercial aircraft presently using the facilities; and, secondly, substituting quieter, higher-capacity aircraft for aircraft currently being utilized. NEW

22. All airports of regional significance, especially those whose future existence is threatened, should be protected by every means. NEW

23. A broad-based airport ownership appropriate to both the market area and the impact area of an airport should be encouraged.

24. Where levels of military activity will permit it, joint use of military airports should be encouraged. (Joint use could enable orderly transition to civil ownership if a facility is declared surplus. Civil use of any surplus military airport should be pursued.)

25. Airline operations should be given priority over general aviation operations in allocating the use of airspace.

26. Civil uses of airspace in the region should not impair critical military missions.

27. Every effort must be exerted to assure that all existing general aviation airports remain part of the future airport system.

28. The Federal Aviation Administration airport design, obstruction, airspace and other safety standards must be followed.

29. Additional land for noise buffer zones around general aviation airports should be acquired where necessary.

30. Aircraft noise and air pollution should be reduced to an acceptable level. NEW

31. The State of California airport noise regulations, or similar federal regulations that may supersede them, shall be adhered to as airport planning criteria for the SCAG region. Environmental impact statements and reports shall demonstrate how an airport development

32. In order to meet the criteria of the California airport noise regulations, every effort must be made to reduce jet engine noise, including engine retrofit or early retirement of older aircraft.

33. Much greater emphasis should be placed upon the development of technology to reduce the noise produced by general aviation aircraft, and particularly that emitted by business jets.

34. State and federal air quality standards shall be criteria for planning the regional airport system. The ability to meet the air quality standards shall be shown in every airport project environmental impact statement or report, and all airport-related zoning change proposals.

35. Aircraft engine ground operating time should be reduced where safety permits.

36. Ground service vehicles at airports should be required to meet highway vehicle emission standards.

Development

37. Any development of an airport beyond the maximum airspace capability shown for it should be undertaken only with the full realization that such development may detract from the optimum utilization of the airspace system, or necessitate reductions in the potential development indicated for other airports.

38. Airports that are remotely located should not be expected to provide capacity relief in the short term to 1980. In the time period beyond that, ground travel time will be a major determinant of how many passengers any remotely located airport will serve. However, phased development of remote passenger terminals should be implemented throughout the region, coinciding with the availability of adequate mass transit.

39. Efforts should be undertaken to integrate into the development strategy all parties having a vital interest in airport ground access (e.g., airport limousine services, taxi companies, transit system operators, rental car agencies, the airlines, and the airport operators).

40. Much greater emphasis must immediately be given to the development of high-speed ground transportation systems to supplement air transportation systems in local and short-haul markets, both for energy conservation reasons and to partially relieve airline airport capacity problems.

41. Construction of a high-speed ground access system is essential to the development of the proposed new Palmdale International Airport. Without such a system a relatively small demand is forecast, and reliance should be placed upon expansion of the existing Air Force Plant 42 facilities.

5.6
NON-MOTORIZED POLICIES

1. The needs of handicapped persons in terms of special design features will be considered in the review process for pedestrian facilities.

2. Encourage and promote the greater use of bicycles for all transportation purposes within the region. Specifically, encourage provisions for bicycle storage at all major facilities.

3. Where appropriate and justified, modify streets and highways to include bicycle facilities.

4. Encourage cities and counties to incorporate into their ordinances and building codes provisions for safe bicycle storage facilities in public and private buildings.

5. Encourage the development and implementation of education and enforcement programs which promote a safe environment for bicycle use.

6. Support legislation facilitating city-county implementation of bicycle programs.

7. Encourage public transit operators to provide bicycle storage facilities where appropriate on public transit vehicles.

8. Urge enforcement of applicable bicycle traffic laws by local governments.

9. The bicycle mode shall be considered as an alternative mode of transportation in the regional transportation planning process.

10. Encourage the development of bicycle facilities which will be:

    - Convenient to use
    - Easily accessible
    - Relatively safe from injury or theft
    - Continuous
    - Integrated into a multi-modal transportation network
    - Of service to as many segments of the population as possible.

11. Encourage non-motorized transportation as an alternative to the automobile.

5.7
MARITIME AND RAILROAD POLICIES

1. Provide guidelines for the incorporation of rail, port, pipeline, and truck considerations in future policies of the Regional Transportation Plan.

2. Utilize adopted local Master Plans for the Ports as a basis for future port development.

3. Recognize the interface between Ports and other publicly provided transportation facilities (especially highways) as an important consideration in future transportation planning efforts.

4. Recognize the interface between rail facilities and highways as a primary consideration in future transportation planning efforts.

5. SCAG supports commuter rail service between the following:

   San Diego to Santa Ana to Los Angeles

   San Bernardino to Los Angeles via Pasadena

   Oxnard to Chatsworth to Los Angeles

6. SCAG should support other attempts to utilize existing rail facilities for passenger (commuter) operations.

7. Maritime alternatives for passenger transport should be assessed as travel demand and technological advances warrant.

8. SCAG should assume a more active role in developing and maintaining working relationships with the private sector operators of the region's rail system.

5.8
FINANCIAL POLICIES

Multi-Modal

1. Seek greater flexibility in the use of transportation funds which are available or may become available from federal and state sources.

2. Support amendment of the Transportation Development Act of 1971 to remove the restriction which limits the funds available for public transportation under the act to 50% of annual local costs after the first five years of operation.

3. Support state and federal policies which will assure that regional and subregional planning agencies receive an adequate and continuing level of funding for regional transportation planning.

4. The maximum allowable amount of Proposition 5 funds should be reserved in the Highway Budget and multi-year planning program for transit use. After a determination has been made on every guideway application submitted, any remaining funds should be programmed to the highest priority highway projects available.

5. Support legislation and amendments to Article 19 of the State Constitution, which would remove the "guideway" transit constraint and allow highway user revenues to be allocated for any type of transportation improvement without percentage limitations.

Transit

6. Optimum use should be made of existing funds for capital improvements prior to seeking new funds.

7. Encourage increased efficiency of transit operations by development and implementation of transit efficiency standards, allocation incentives, and improved data gathering and analysis capabilities.

8. Encourage transit operators to establish a desired ratio of fares to subsidy. As costs increase over time, it is necessary for financial stability, that either a) this relative level be maintained through periodic review and increase of fares or b) the subsidy share of total costs be increased by increasing taxes.

9. That the available Section 5 funds be made available within the Los Angeles-Long Beach urbanized area only for operating assistance requirements.

o That any available unused Section 5 funds from FY 75, 1976 and 77 be made available to the Southern California Rapid Transit District for operating losses incurred during the FY 76 and 77. DROPPED

10. The allocation of Section 5 funds for FY 75, 76, and 77 is available to each operator for that annual element year plus the two years following.

11. SCAG will take the necessary united action to ensure the availabilty of Section 3 funds to meet all reasonable capital requirements as approved in the Regional Short Range Transit Plan.

o Allocate within the Los Angeles-Long Beach urbanized area Section 5 funds based upon the Regional Short Range Transit Plan up through FY 78 as adopted or modified. DROPPE

12. A specific allocation policy on Section 5 moneys will be developed.

13. Section 5 moneys for transit service will be based on SCAG Executive Committee agreement through FY 1980; thereafter, allocations will be based on an agreed-upon allocation formula. NEW

o The Transit Service Policies which call for first funding of existing service, and second, expansion of service in areas deficient according to the service standards and transit efficiency standards, shall be used as criteria for the allocation of state and federal transit resources. DROPPE

o SCAG shall develop an equitable program of transit funding support to transit districts and municipal transit operators. This program shall identify alternative sources of transit funding to assist in establishing an equitable and realistic funding base for all transit operators. DROPP

14. Seek increased funding for transit operations.

15. Every effort shall be made to maximize the use of available federal transportation grants to support transit system operating costs and capital improvements. NEW

16. Encourage local governments to use Federal Revenue Sharing funds for transit.

17 Seek necessary legislation and constitutional changes to facilitate implementation of value capture financing mechanisms by transit districts.

Highways

18 Although it would be more appropriate for increases in gasoline taxes to be levied by state governments, it is possible that federal action may result in imposition of an additional gas tax. The region will oppose imposition of any federal tax from which revenues are not retained in the region for public transportation purposes. Federal and state efforts to increase gasoline taxes should be coordinated to avoid simultaneous imposition of taxes on the SCAG region.

19. The state should seek a greater return on our federal highway user taxes than the present 65%.

20. Ensure adequate funding of maintenance, rehabilitation, safety, and operational improvements on existing highway system.

Streets-and-Roads

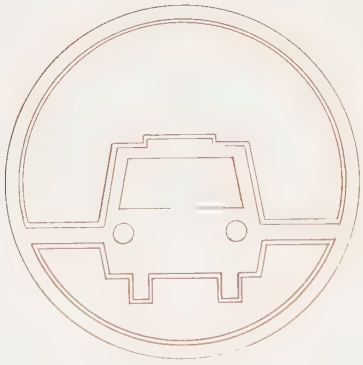
21. Support a 2-cent-per-gallon gasoline tax increase, with the funds to be returned directly to local governments for transportation purposes.

programs and actions

6.0

multimodal

6.1



6.0
PROGRAMS AND ACTIONS

6.1
MULTI-MODAL

This section describes three planning approaches that transcend most of the transportation modes:

- o Transportation System Management (TSM),
- o Ridesharing, and
- o Air Quality Management.

Each planning approach leads toward attainment of the goals adopted by the region. For example, TSM attempts to make the most of the system we have by improved management and operational efficiency. The Ridesharing Program tries to maintain mobility without adding more cars to the roads. The Air Quality Management planning activities seek to improve air quality -- in part, by reducing the pollution caused by transportation.

The action recommendations arising from these approaches are scattered throughout the plan. A separate TSM will be prepared after adoption of the plan. TSM actions are currently labeled as such in each modal section. Ridesharing and transportation air quality actions are in this section.

Understanding the integration of these strategies throughout the plan is important, since many actions support all three programs. For example, providing exclusive lanes for transit, vanpools, and carpools is basically a ridesharing strategy. However, when two or more people who once drove separately share a vehicle, there is also less congestion and vehicle pollution. Thus the exclusive lane may also meet the aims of the transportation management and air quality approaches.

The Ridesharing program now under way includes an extensive citizen involvement phase with specific community liaison areas spread throughout the region.

The Air Quality Management planning program is now examining the possible options available to the region to attain clean air (Appendix C-1). After review and adoption, revised transportation air quality actions will be amended into the Regional Transportation Plan.

6.1.1
Transportation Systems Management (TSM)

Transportation Systems Management actions are identified in the modal sections.* These are generally low-cost projects that improve, rather than expand, the existing system. The TSM actions, collectively, generally conserve energy, improve air quality, and increase transportation efficiency, safety, and mobility.

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* Separate modal sections address the automobile, transit, highways, airports, non-motorized modes, and maritime and railroads.

TSM activities may be divided into four categories:

1. Actions to Ensure the Efficient Use of Existing Road Space

   Traffic Operations Improvements to Manage and Control the Flow of Motor Vehicles, such as:

   -- Channelization of traffic
   -- One-way streets
   -- Computerized traffic controls
   -- Metered access to freeways
   -- Reversible traffic lanes.

   Preferential Treatment for Transit and Other High-Occupancy Vehicles, such as:

   -- Reserved or exclusive lanes on freeways
   -- Exclusive lanes to bypass congested points.
   -- Conversion of selected downtown streets to exclusive bus use
   -- HOV ramp meter bypass
   -- Bus pre-emption of traffic signals
   -- Special turning lanes or exemption of buses from turning restrictions

   Appropriate Provision for Pedestrians and Bicycles, such as:

   -- Bicycle paths and exclusive lanes
   -- Pedestrian malls and other means of separating pedestrian and vehicle traffic.
   -- Secure and convenient storage for bicycles.

   Management and Control of Parking Through:

   -- Eliminating on-street parking, especially during peak periods
   -- Regulating the number and price of public and private parking spaces
   -- Favoring parking by short-term users over all day commuters
   -- Providing fringe and transportation-corridor parking to make transfer to transit and other high-occupancy vehicles easier
   -- Strictly enforcing parking restrictions

   Changes in Work Schedules, such as:

   -- Staggered work hours
   -- Flexible work hours

2. Actions to Reduce Vehicle Use in Congested Areas

   -- Marketing of carpooling, vanpooling, transit, and paratransit to encourage ride sharing
   -- Establishing auto-free zones and closing selected streets to vehicles or to through traffic

3. Actions to Improve Transit Service

-- Providing better collection, distribution, and internal circulation services in low-density areas
-- Making transit-vehicle routing, scheduling, and dispatching more flexible and responsive to demand
-- Providing express bus services coordinated with local collection and distribution services
-- Providing park-and-ride service from fringe and transportation-corridor parking areas
-- Encouraging paratransit services
-- Simplifying fare collection systems and policies
-- Providing shelters and other passenger amenities
-- Better passenger information systems and services

4. Actions to Increase Internal Transit Management Efficiency such as:

-- Improving marketing
-- Establishing maintenance policies to assure greater equipment reliability
-- Using communication technology to develop monitoring and control capacity.

Transportation Systems Management attempts to maintain personal mobility while addressing present and future transportation-related problems within a realistic financial framework. TSM stategies aim at increasing the people-moving capacity of the existing transportation system. One way to do this is to increase the number of persons riding in each vehicle. This is the objective of the Ridesharing program.

Ridesharing Program

A wide range of ridesharing options can be combined into a variety of flexible strategies. The options, which can be used by the private sector, individuals, local governments, and transportation agencies, cover: (1) Transportation Facility Improvements, (2) Non-Facility Transit Service Improvements, (3) Paratransit, (4) Public Sector Informational, Legislative, and Administrative Support Activities, and (5) Employer Incentive Programs.

Transportation Facilities Improvements physically modify or add to the existing system. These include:

-- ramp-meters with bypass lanes for transit and other high-occupancy vehicles,
-- exclusive lanes for high-occupancy vehicles on freeways and surface streets,
- park-and-ride lots,
- park-and-pool lots,
- bus fleet expansion, and
- commuter rail service.

Non-Facility Transit Service Improvements include options that make transit more efficient, convenient, and economical. Included are revised operating procedures such as fare and schedule restructuring, and improved transit information systems. Other options in this category are increased express-bus service and subscription-bus service.

Paratransit options serve commuter and non-commuter needs. Collection/distribution (feeder) service between a residence and an express bus or train stop reduces the need for a second car, and makes ridesharing a money-saving, attractive alternative. Community-level transit service serves short-distance work trips and transit dependents. This type of option includes dial-a-ride and shared-ride taxi.

Public Sector Informational, Legislative, and Administrative Support Activities is an umbrella for a wide range of options. Among these:

-- rideshare brokerage, which involves providing information on ridesharing, and matching commuters with available ridesharing opportunities,
-- media advertising,
activities that support removing legislative barriers to ridesharing, revising ordinances, and changing tax structures,
-- managing an area's parking supply to spur ridesharing.

Employer Incentive Programs include:

-- preferential or free parking for users of high-occupancy vehicles,
-- subsidies for employees who commute in high-occupancy vehicles, and
-- flexible scheduling to make ridesharing usable by more employees.

Employers can also spur ridesharing by developing an employee-matching rideshare system within the company. Finally, employers could provide new or existing freet vehicles to serve both regular or backup rideshare commuter trips and workday business trips.

Current Ridesharing Plan Activities

Transportation agencies in Southern California have studied and implemented ridesharing program options for some time. Current ridesharing projects include the San Bernardino Busway; ramp meters with bypass lanes for carpools, vanpools, and buses; park-and-ride and park-and-pool lots; private-sector incentive programs; and Commuter Computer's vanpool program and ridesharer-matching service. In 1977, the SCAG Executive Committee authorized an intensive ridesharing planning effort which was to draw upon past experience with ridesharing and was to include a significant community-involvement program.

The effort includes five broad task areas:

1) Statement of Problems. Purpose: to define and disseminate information on the four problem areas: air pollution, energy, congestion, and auto user costs.

2) Evaluate Rideshare Experience. Purpose: to document and evaluate data on past rideshare activities in Southern California and elsewhere. These data will include operational effectiveness, environmental impacts, costs, public attitudes, and other factors as appropriate, and will be used to develop future rideshare activities.

3) Community Involvement. Purpose: to inform and involve the public on transportation-related problems and available rideshare options. A special effort will be made to involve public officials, the private sector, and civic or special-interest groups.

   This task has two parts: a regionwide public information program, and a community-level effort focusing on specific issues and potential Rideshare Program activities. The communities selected provide a cross-section of demographic, travel and political characteristics. The effort in each Community Liaison Area will be determined in total cooperation with the community.

4) Formulate Rideshare Program. Purpose: to develop recommendations for a revised rideshare program. These will be largely based on information acquired through the regionwide and community-level involvement program, and analyses of costs, impacts, feasibility, timing, potential effectiveness, and potential contribution to attainment of rideshare program goals.

5) Implement Rideshare Program. This task involves preparation of an overall implementation strategy for the rideshare program. This program will contain rideshare options which analyses have shown are technically feasible, socially and politically acceptable, and consistent with the Air Quality Management objectives.

The process described above is the prerequisite for the adoption of an action plan. Below are related actions previously adopted. (These actions were previously located in different modal sections of the 1977 RTP.)

Ridesharing Actions

1. Endorse preferential treatment for high-occupancy vehicles, including exclusive lanes on freeways and arterials where consistent with adopted criteria, bypass lanes for on-ramps, and preferential parking.

2. Continue to support current rideshare program

3. Continue to support Commuter Computer to provide high occupancy vehicle incentives such as carpool and vanpool matching, and bus service information in the region.

4. Install bypass lanes for high occupancy vehicles at 50% of the metered freeway ramps in the urbanized area, using the following schedule:

RAMP METERING PROJECT IMPLEMENTATION SCHEDULE

	NUMBER OF RAMPS METERED	TOTAL NUMBER OF BYPASS LANES	PERCENTAGE OF RAMPS WITH BYPASS LANES
AS OF JAN 1978	253	46	18%
BY JAN 1979	567	223	39%
BY JAN 1980	700	350	50%
BY JAN 1983	1000	500	50%

5. After completion of the southbound portion of the San Diego Freeway project, and the rideshare program update, the Executive Committee will reconsider the preferential use of the median lanes on the basis of all available information.

6. Construct the I-105 freeway as a joint transitway; include ramp metering and by-pass lanes for high occupancy vehicles.

7. Expand existing information campaign and other measures to encourage employer-sponsored VMT reduction programs, such as carpooling, vanpooling, subscription bus service, public transit use and flextime to facilitate schedule flexibility for ridesharers. Urge employers to provide free bus passes and carpool/vanpool subsidies equivalent to their current parking subsidies for the single occupant vehicle.

table 6.1-1

8. Continue to monitor and propose changes to local ordinances, state and federal laws and regulations relating to their implications for carpooling and vanpooling programs and the operation of public transit and private transit service (e.g., taxis and commuter buses).

6.1.2
Transportation and Air Quality

Although ridesharing and other TSM activities will contribute toward reducing air pollution, additional actions will be needed to meet State and Federal air quality standards.

Air Quality Actions

The following actions were adopted as part of the 1977 RTP. A more complete set of actions will be proposed, based on the results of the current transportation air quality planning activities discussed below.

1. Provide information to the general public on the economic and environmental benefits and methods of reducing the emissions of pollutants and conserving energy; and encourage private firms to take these considerations into account in the acquisition, replacement or operation of autos, trucks, and other vehicles. Responsibility of SCAG and subregional agencies on a continuing basis.

2. Recommend that federal and state governments extend emission controls to currently uncontrolled sources (i.e., motorcycles, motorboats, and other off-road vehicles), and that prior to implementation a cost-effectiveness study be completed by ARB and EPA.

3. Endorse a mandatory annual inspection/maintenance program for light-duty vehicles in the South Coast Air Basin as one method of achieving the objectives for air quality improvements with the provision that the Riverside program be closely monitored for cost-effectiveness prior to implementation in 1979.

4. Recommend that the state and federal governments consider a tax credit or tax deduction for low-income individuals to mitigate the vehicle maintenance costs attributable to a mandatory inspection and maintenance program.

5. Seek assurance from domestic automobile manufacturers that significant improvements will be made to the automobile, in terms of fuel economy, pollution characteristics, and safety. Such improvements should have the following aims:
   - A pollution-free engine, to be achieved either by design innovations or through the use of alternative sources of energy.
   - As the average size of automobiles is reduced, incorporate additional safety improvements into their design.

Planning Requirements

The Federal Clean Air Act requires that each state adopt a plan (State Implementation Plan, SIP) to achieve and maintain air quality standards -- using, when appropriate, transportation control measures. The Clean Air Act Amendments of 1977 require that the national air quality standards be met by 1982, with a possible extension to 1987. In addition, the amendments give EPA the authority to withhold certain federal funds from the state if an acceptable plan is not developed, implemented, and enforced.

As one step toward development of the SIP, State planning guidelines require that SCAG develop a realistic, long-term transportation alternative for the region, using air quality as a constraint. SCAG has developed a Transportation Air Quality Alternative (AQA) which responds to this requirement, and has initiated development of the transportation element of the regional Air Quality Management Plan.

Transportation Air Quality Analyses

The air quality objective adopted in the 1977 RTP calls for a 20% reduction in mobile source emissions by 1995. For study purposes, the AQA doubles this objective to 40%.

Many strategies have been proposed for mobile-source management to reduce emissions (see Appendix C-1). Of these strategies, eight appear most effective in achieving the objectives of the 1977 RTP and AQA. This preliminary conclusion is based on an analysis aimed at testing the sensitivity of major transportation travel characteristics, review of current implementing agency activities, the 1977 RTP, and an initial screening of research findings documented in various studies.

Preliminary Identification of Most Effective Strategies

Transit System Management and Efficiency Improvements
High-Occupancy Light-Duty Vehicle Program
Off-Road Mobile Sources System and Management Improvements
Highway System and Operational Improvements
Parking Management
Travel Reductions and Substitutes
Pricing Measures
Manage Regional Growth Through Land Use/Transportation Integration

Other strategies to be considered in future updates to this analysis include: additional technological controls, new technology, continuation of current programs, and episode controls.*

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* Note that while technological improvements were not accounted for in this analysis as per State Transportation Planning guidelines, it is quite clear that these technological controls and improvements must be considered, particularly for off-road (aviation, rail, ship, construction equipment, etc.) and heavy-duty mobile sources.

The effectiveness of each strategy has been evaluated in terms of the conditions required to achieve travel reductions or other changes needed to reduce emissions to achieve the adopted RTP and AQA objectives. Results are shown in Table 6.1-2, and in greater detail in Appendix C-2.

Additional analysis is currently being performed. The result will be the development, later this year, of the transportation element of the Air Quality Management Plan (AQMP).

Amendments to the RTP

The 1978 revisions of the RTP are scheduled to be adopted by the Executive Committee of SCAG on October 5, 1978, after a process of reviews and modifications. The AQMP is being prepared in accordance with a schedule that calls for adoption by the Executive Committee on December 7, 1978. Transportation policies and actions adopted in the AQMP will be presented to the Executive Committee separately for adoption as amendments to the RTP.

REQUIRED FOR

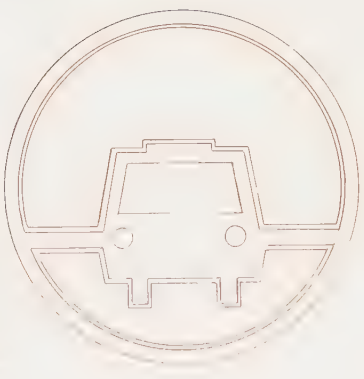
1978 RTP OBJECTIVE AND TRANSPORTATION AQA STUDY OBJECTIVE

	1978 RTP Objective Increments (20% Reduction)					Transportation AQA Increments (40% Reduction)				
Strategies	1980	1985	1990	1995	Sub-Total	1980	1985	1990	1995	Total
Transit	0.3	0.3	0.3	0.3	1.2	0.625	0.625	0.625	0.625	2.5
HOV	0.875	0.875	0.875	0.875	3.5	1.6	1.6	1.6	1.6	6.4
Off-Road	0.85	0.85	0.85	0.85	3.4	1.725	1.725	1.725	1.725	6.9
Highway	0.75	0.75	0.75	0.75	3.0	1.25	1.25	1.25	1.25	5.0
Parking Management	0.375	0.375	0.375	0.375	1.5	0.625	0.625	0.625	0.625	2.5
Travel Reduction/ Substitutes	1.45	1.45	1.45	1.45	5.8	2.95	2.95	2.95	2.95	11.8
Pricing Measures	0.4	0.4	0.4	0.4	1.6	0.775	0.775	0.775	0.775	3.1
Manage Regional Growth	-	-	-	-	-	0.45	0.45	0.45	0.45	1.8
	5.0	5.0	5.0	5.0	20.0%	10.0	10.0	10.0	10.0	40.0%

Note: Reductions are distributed equally per 5-year interval without regard for implementation scheduling. As implementation schedules are established this table would be revised.

table 6.1-2

auto



6.2

6.2
AUTOMOBILES

Automobiles are the region's chief mode of travel: about 5.5 million of them carry 97% of the 37,865,000 daily person-trips. And they are expected to carry most of the region's 43,000,000 daily person-trips in 1995.

This chapter deals with automobile management: measures to minimize its impact on air quality, lessen its consumption of energy -- and, at the same time, promote better traffic-flow and reduce congestion.

These include measures to:

- Reduce or combine automobile trips.
  This reduces emissions, fuel consumption, and congestion.

- Improve efficiency of travel corridors.
  Synchronized signals, reversible lanes, etc., can make vehicle operations more efficient.

- Improve the technical characteristics of the automobile itself.
  Better engines could lessen auto emission rates and fuel use.

Emissions, fuel consumption, and congestion are most directly improved by reducing auto use -- either the length of the average trip or the number of vehicle trips, since both have an impact on vehicle miles of travel (VMT). Thus ridesharing, which increases vehicle occupancy, also reduces emissions, energy use, and congestion.

California Emission Standards have greatly reduced auto emissions, and future improvements are expected. The 1978 model-year cars' CO emissions will fall to 2.8 grams/mile, about 3% of the CO rate of 1966 model-year cars. As newer, "cleaner" cars replace older, "dirtier" cars, the overall emission rate for the vehicle fleet will fall. By 1980, expected reductions (relative to 1975 levels) range from 16% for evaporative hydrocarbons to 65% for carbon monoxide exhausts.

Technical characteristics can be improved by modifying autos already in use (e.g., engine components could be maintained more frequently), and mandating improvements in new cars, through emission or fuel-economy standards. The efficiency of travel corridors can be improved by TSM actions (see Section 6.1.1)

The actions which follow increase the efficiency of auto use:

1. Endorse California Emission Standards for light-duty vehicles.

2. Endorse federal fuel economy standards for 1978, 1979, and 1980 model-year automobiles.

3. Endorse a mandatory annual inspection/maintenance program for light duty vehicles in the South Coast Air Basin as one method of achieving the objectives for air quality improvements with the provision that the Riverside program be closely monitored for cost/effectiveness prior to implementation in 1979.

4. Recommend that the state and federal governments consider a tax credit or tax deduction for low-income individuals to mitigate the vehicle maintenance costs attributable to a mandatory inspection and maintenance program.

   Phase I: Pilot project in the City of Riverside (started September 2, 1975).

   Phase II: Mandatory inspection for light-duty vehicles upon change of ownership and initial registration, effective July 1, 1979, in the South Coast Air Basin.

   Phase III: Mandatory inspection upon annual renewal of registration, effective January 1, 1981.

5. Urge enforcement of the 55 mph speed limit. Increase public awareness of the speed limit.

6. Support signal synchronization programs.

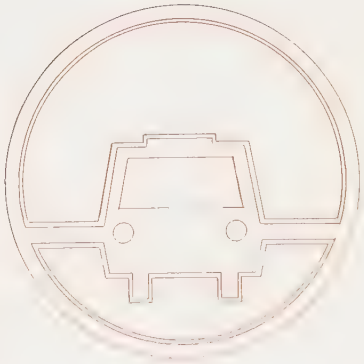
7. Seek assurance from domestic automobile manufacturers that significant improvements will be made to the automobile, in terms of fuel economy, pollution characteristics, and safety. Such improvements should have the following aims:

   - A pollution-free engine, to be achieved either by design innovations or through the use of alternative sources of energy.

   - As the average size of automobiles is reduced, incorporate additional safety improvements into their design.

transit

6.3



6.3
TRANSIT

6.3.1
Setting

Public transit service in the SCAG region includes fixed-route bus service,. demand-responsive (dial-a-ride) service, route-deviation bus service and charter service. The only rail transit in the region is offered by AMTRAK. Paratransit (taxis, subscription bus service, etc.) is provided by private and public sector operators, and several local governments provide specialized services for particular groups.

Over one million riders use the SCAG region's transit systems each day: about 850,000 use the Southern California Rapid Transit District service, slightly over 60,000 use the Orange County Transit District service, and the remainder are distributed among operators in other counties and municipal operators in the urbanized area. Although these transit trips are a small percentage of the total person trips (approximately 3.36%), during the peak-hour, transit person-trips rise to about 10% of the total trips.

Direct responsibility for providing public transportation service in the region is shared by several transit operating entities, generally organized according to geographic political jurisdictions. Major transit operators' service areas are shown in Figure 6.3-1. The two largest of these are the Southern California Rapid Transit District (SCRTD) which provides most of the Los Angeles County service and the Orange County Transit District (OCTD) which serves Orange County. As transit districts, SCRTD and OCTD were created by special state legislation.

In three other counties, local governments have formed joint powers agencies as primary service providers. These are the Riverside Transit Agency (RTA) and Sunline in Riverside County, OMNITRANS in San Bernardino County and South Coast Area Transit in Ventura County. Although specific arrangements between member cities and counties differ in each area, the general organizational relationship is one of joint decision-making, shared costs and fully coordinated service arrangements for participating local governments.

In addition to the service provided by transit districts and joint powers agencies, several cities own and operate municipal transit systems, especially in Los Angeles County. Many local governments also contract for service from other cities and/or taxicab companies.

There has been a significant expansion of paratransit service in recent years, with more than a thousand social service agencies and private-sector providers offering specialized transportation service, primarily to their client groups. Recent surveys have identified more than 5,000 vehicles committed to these types of operations in Los Angeles County alone.

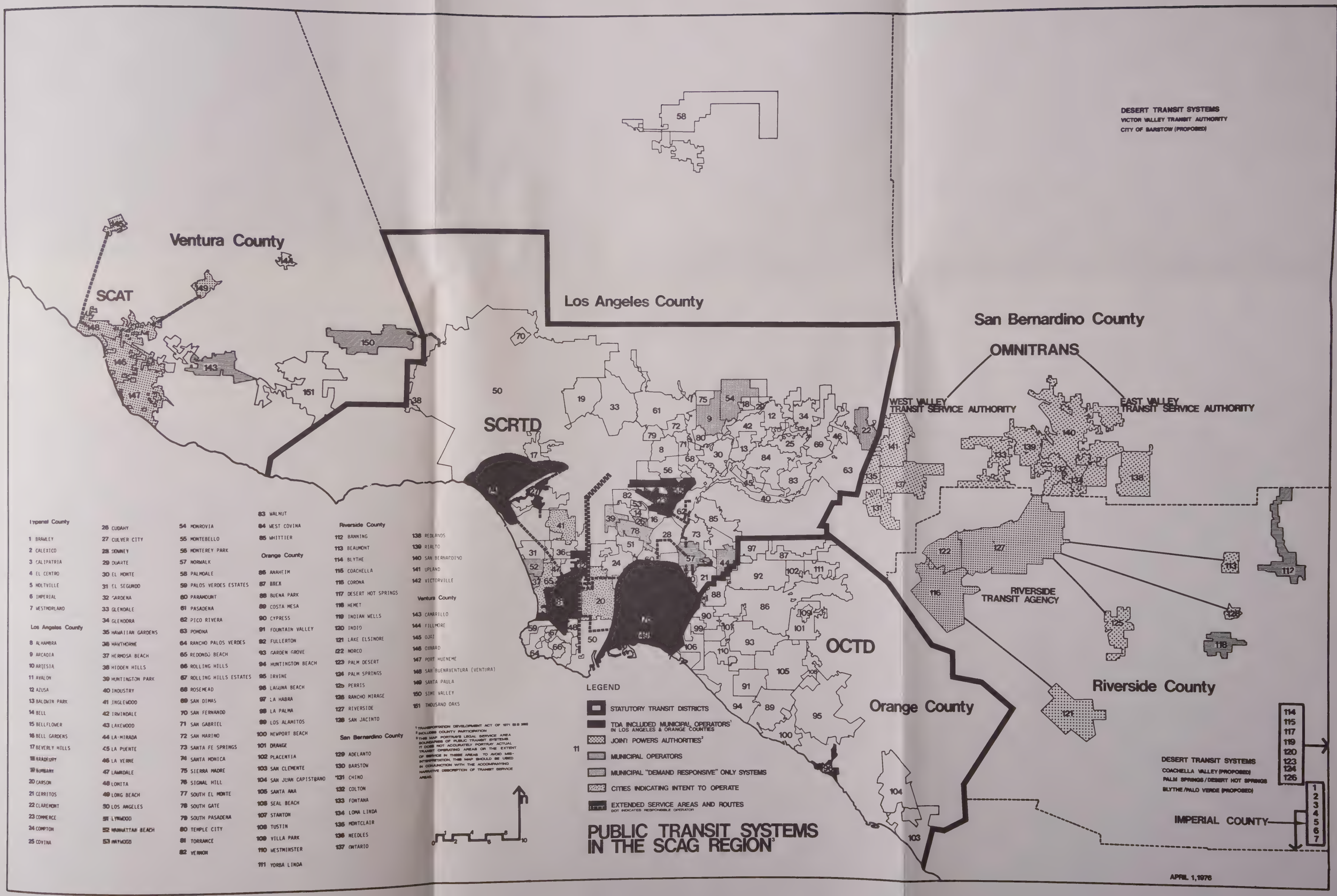

Ventura County
SCAT
Los Angeles County
SCRTD
San Bernardino County
OMNITRANS
WEST VALLEY TRANSIT SERVICE AUTHORITY
EAST VALLEY TRANSIT SERVICE AUTHORITY
RIVERSIDE TRANSIT AGENCY
OCTD
Orange County
Riverside County
IMPERIAL COUNTY
DESERT TRANSIT SYSTEMS
VICTOR VALLEY TRANSIT AUTHORITY
CITY OF BARSTOW (PROPOSED)
DESERT TRANSIT SYSTEMS
COACHELLA VALLEY (PROPOSED)
PALM SPRINGS / DESERT HOT SPRINGS
BLYTHE / PALO VERDE (PROPOSED)
LEGEND
STATUTORY TRANSIT DISTRICTS
TDA INCLUDED MUNICIPAL OPERATORS' IN LOS ANGELES & ORANGE COUNTIES
JOINT POWERS AUTHORITIES²
MUNICIPAL OPERATORS
MUNICIPAL "DEMAND RESPONSIVE" ONLY SYSTEMS
CITIES INDICATING INTENT TO OPERATE
EXTENDED SERVICE AREAS AND ROUTES
DOT INDICATES RESPONSIBLE OPERATOR
PUBLIC TRANSIT SYSTEMS IN THE SCAG REGION³
APRIL 1, 1976
Imperial County
1 BRAWLEY
2 CALEXICO
3 CALIPATRIA
4 EL CENTRO
5 HOLTVILLE
6 IMPERIAL
7 WESTMORLAND
Los Angeles County
8 ALHAMBRA
9 ARCADIA
10 ARTESIA
11 AVALON
12 AZUSA
13 BALDWIN PARK
14 BELL
15 BELLFLOWER
16 BELL GARDENS
17 BEVERLY HILLS
18 BRADBURY
19 BURBANK
20 CARSON
21 CERRITOS
22 CLAREMONT
23 COMMERCE
24 COMPTON
25 COVINA
26 CUDAHY
27 CULVER CITY
28 DOWNEY
29 DUARTE
30 EL MONTE
31 EL SEGUNDO
32 GARDENA
33 GLENDALE
34 GLENDORA
35 HAWAIIAN GARDENS
36 HAWTHORNE
37 HERMOSA BEACH
38 HIDDEN HILLS
39 HUNTINGTON PARK
40 INDUSTRY
41 INGLEWOOD
42 IRWINDALE
43 LAKEWOOD
44 LA MIRADA
45 LA PUENTE
46 LA VERNE
47 LAWNDALE
48 LOMITA
49 LONG BEACH
50 LOS ANGELES
51 LYNWOOD
52 MANHATTAN BEACH
53 MAYWOOD
54 MONROVIA
55 MONTEBELLO
56 MONTEREY PARK
57 NORWALK
58 PALMDALE
59 PALOS VERDES ESTATES
60 PARAMOUNT
61 PASADENA
62 PICO RIVERA
63 POMONA
64 RANCHO PALOS VERDES
65 REDONDO BEACH
66 ROLLING HILLS
67 ROLLING HILLS ESTATES
68 ROSEMEAD
69 SAN DIMAS
70 SAN FERNANDO
71 SAN GABRIEL
72 SAN MARINO
73 SANTA FE SPRINGS
74 SANTA MONICA
75 SIERRA MADRE
76 SIGNAL HILL
77 SOUTH EL MONTE
78 SOUTH GATE
79 SOUTH PASADENA
80 TEMPLE CITY
81 TORRANCE
82 VERNON
83 WALNUT
84 WEST COVINA
85 WHITTIER
Orange County
86 ANAHEIM
87 BREA
88 BUENA PARK
89 COSTA MESA
90 CYPRESS
91 FOUNTAIN VALLEY
92 FULLERTON
93 GARDEN GROVE
94 HUNTINGTON BEACH
95 IRVINE
96 LAGUNA BEACH
97 LA HABRA
98 LA PALMA
99 LOS ALAMITOS
100 NEWPORT BEACH
101 ORANGE
102 PLACENTIA
103 SAN CLEMENTE
104 SAN JUAN CAPISTRANO
105 SANTA ANA
106 SEAL BEACH
107 STANTON
108 TUSTIN
109 VILLA PARK
110 WESTMINSTER
111 YORBA LINDA
Riverside County
112 BANNING
113 BEAUMONT
114 BLYTHE
115 COACHELLA
116 CORONA
117 DESERT HOT SPRINGS
118 HEMET
119 INDIAN WELLS
120 INDIO
121 LAKE ELSINORE
122 NORCO
123 PALM DESERT
124 PALM SPRINGS
125 PERRIS
126 RANCHO MIRAGE
127 RIVERSIDE
128 SAN JACINTO
San Bernardino County
129 ADELANTO
130 BARSTOW
131 CHINO
132 COLTON
133 FONTANA
134 LOMA LINDA
135 MONTCLAIR
136 NEEDLES
137 ONTARIO
138 REDLANDS
139 RIALTO
140 SAN BERNARDINO
141 UPLAND
142 VICTORVILLE
Ventura County
143 CAMARILLO
144 FILLMORE
145 OJAI
146 OXNARD
147 PORT HUENEME
148 SAN BUENAVENTURA (VENTURA)
149 SANTA PAULA
150 SIMI VALLEY
151 THOUSAND OAKS
1 TRANSPORTATION DEVELOPMENT ACT OF 1971 (P.U. 1955)
2 INCLUDES COUNTY PARTICIPATION
3 THIS MAP PORTRAYS LEGAL SERVICE AREA BOUNDARIES OF PUBLIC TRANSIT SYSTEMS. IT DOES NOT ACCURATELY PORTRAY ACTUAL TRANSIT OPERATING AREAS OR THE EXTENT OF SERVICE IN THESE AREAS. TO AVOID MISINTERPRETATION, THIS MAP SHOULD BE USED IN CONJUNCTION WITH THE ACCOMPANYING NARRATIVE DESCRIPTION OF TRANSIT SERVICE AREAS.
0 1 2 5 10

figure 6.3-1

Seventy-five taxi service providers operate 1,500 taxis in the region and carry 15 million passengers per year. Nearly 100 private commuter buses are operated in the region, transporting 3,000 commuters daily. All together, 65 private bus companies offer airport transportation, charter and tour service, school bus service, and even local transit.

6.3.2 Transit Objectives

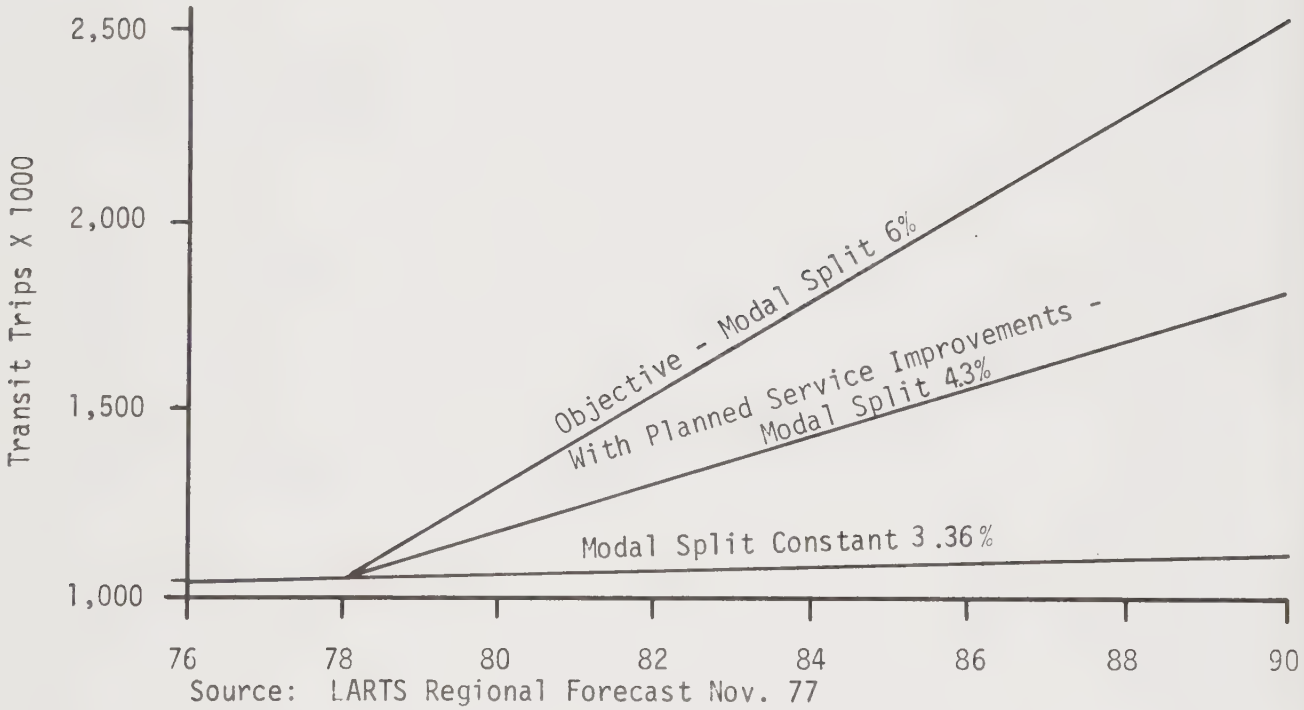
Transportation objectives on energy and air quality can be supported through reaching a modal split of 6% of regional person-trips on transit by 1990. It is assumed that each county of the SCAG region will improve transit ridership in proportion to its existing ridership, to meet this regional modal-split objective.

The LARTS modeling and patronage forecasting methodology was used for projecting transit ridership under varying service improvement alternatives. The alternative endorsed for planning purposes -- the Regional Transit Development Program -- projects a ridership level in the region of 1,800,000 by 1990 through service improvements. This is equivalent to a 4.4% modal split. To reach the transit objective of 6% modal split or 2,500,000 transit trips, other strategies which encourage transit must be successfully implemented. Such strategies include fare policy changes, parking management, employee subsidies, information and marketing. (Refer to Section 6.1.1.)

Figure 6.3-2 projects the number of transit trips required to reach the modal split objective of 6% transit trips. The lower line reflects the increase in transit ridership due solely to population increase, assuming no transit system improvements over 1976 through 1990. The middle line reflects the projected increase in transit ridership resulting from improved service as defined by the Regional Transit Development Program (described under the Transit Development Section of this Plan). The top line reflects the transit ridership objective of 6%.

TRANSIT RIDERSHIP OBJECTIVES
SCAG REGION

	1976	1990
Daily Person Trips	37,865,200	41,961,954
Transit Trips	1,272,300	1,811,546
% Transit Trips	3.36%	4.3%
T.T. to Reach 6%		2,517,645



Source: LARTS Regional Forecast Nov. 77

figure 6.3-2

6.3.3
Plans, Planning, and Issues

Planning to Meet the 6% Transit Ridership Objective.

a. Short-Range Transit Plans developed for the five-year period FY 1979 through FY 1983 generally consider two alternatives, one a status quo option, and the second, an expansion option, which forms the basis for the Regional Transit Development Program, Element I (TSM). The Short-Range Transit Planning process, which has evolved in response to state and federal regulations, represents a blending of regional, "top down" and local "bottom-up" planning. The regional role has been expressed through uniform guidelines for preparation and adoption of local plans, prepared by the region's transit system operators and subregional planning agencies.

b. The Regional Transit Development Program is a plan to improve transit through better use of freeways and fixed-guideway systems. The plan refinement and preliminary engineering phase of the Regional Transit Development Program got underway since the last issue of the Regional Transportation Plan.

   The Regional Transit Development Program will reach a decision point early in fiscal year 1979. To support expanded RTDP operations and capital improvements, a new source of funds must be identified -- and made available.

c. The coming year will also see greater emphasis on ridesharing strategies to encourage greater transit ridership. (Discussed in Section 6.1.1)

Meeting the Needs of the Transit Dependent

Planning for the elderly and handicapped has received increased emphasis since the last RTP was adopted. Surveys of all social service organizations in Los Angeles, Ventura, and Imperial Counties were completed and the results compiled. An E & H needs study is nearing completion. The coming year will emphasize the matching of needs to available services and development of a comprehensive plan to improve transportation for the elderly and handicapped.

6.3.4
Transit System Actions

TSM Actions

Short Range Transit Plans. (The following is a summary of the actions submitted for the 1978-83 Short Range Transit Plan.)

1. SCRTD will expand its fleet by 150 buses per year, from 2210 in 1978 to 2960 by 1983. ("Minimum expansion plan"); replace 1500 buses; renovate several fixed facilities; add 2 bus yards and a maintenance facility. Increase patronage by 24% from 310 million to 384 million annually by 1983. NEW

2. OCTD will double its fleet from 359 buses to 821 buses by 1983, add six transportation terminals, develop the Southern Pacific corridor and increase patronage by 100%, from 20 million to 40 million annually. NEW

3. RTA and Sunline will, by 1983, expand their fleet 49% from 71 vehicles to 106 vehicles, and increase patronage 100%, from 2 million to 4 million annually. NEW

4. Omnitrans will improve equipment and quality of service. NEW

5. SCAT and Simi Valley will improve service and expand the fleet of 37 vehicles to 44 vehicles by 1983. NEW

6. SCAT and Simi Valley will increase patronage by 42% from 2.8 million to 4.0 million annual riders. NEW

Elderly and Handicapped

7. Transit operators, the CTC's, and SCAG will annually update the element of the Short Range Transit Plan for the elderly and handicapped, including procedures and programs to reduce or eliminate barriers and increase the number of fully accessible vehicles in the region's transit and paratransit fleets. NEW

8. OCTC, SANBAG, and RCTC will develop a catalog of paratransit services. NEW

9. SCAG, the CTC's, VCAG, and IVAG will update and maintain a catalog of paratransit services for each subregion. NEW

10. SCAG will prepare a regional plan on elderly and handicapped policies, needs, and activities, in conjunction with all interested parties in the region. NEW

11. SCAG and the CTC's will study alternative means of coordinating social service agency transportation delivery systems. NEW

12. SCAG, the CTC's, and transit operators will sponsor public workshops for the purpose of considering transportation needs of the elderly and the handicapped (particularly the semi-ambulatory and wheelchair users). NEW

Procedural

13. The CTC's and transit operators will prepare an annual Short-Range Transit Plan and Transit TIP consistent with the RTP. NEW

14. SCAG will prepare an annual Regional Short-Range Transit Plan. NEW

Coordination

15. SCAG, the CTC's, and the transit operators will execute and comply with the Memorandum of Understanding. NEW

16. Transit operators, the CTC's, and SCAG will improve and coordinate public transit passenger information systems and services. NEW

6.3.5
System Development Actions

Regional Transit Development Program: Plan Development

17. SCAG, in conjunction with the State Public Utilities Commission (PUC), shall investigate changes in the PUC's "Southern California Restriction" which prohibits inter-regional carriers from providing intra-regional service in parts of Los Angeles, Orange, Riverside, and San Bernardino Counties. Specifically, they shall consider: NEW

    a) eliminating the restriction during days and hours when public transit is not operating;
    b) selectively applying the restriction to certain routes and corridors;
    c) eliminating the restriction entirely and allowing the inter-regional carriers to compete with public transit, offering higher fares but reduced travel times.

18. LACTC, Transit Operators, CALTRANS, and the City and County of Los Angeles will conduct preliminary engineering and EIS phase I and then implement the Regional Transit Development Program in Los Angeles County as approved and funded by local jurisdictions. NEW

19. OCTC and OCTD will, as part of the Regional Transit Development Program, conduct preliminary engineering and prepare an EIS for exclusive transit guideway in the Santa Ana/Los Angeles Corridor. NEW

20. RCTC and Caltrans will, as part of the Regional Transit Development Program, conduct plan refinement and preliminary engineering in Riverside County, and prepare an EIS if required as a result of the plan refinement effort. NEW

21. SANBAG and Caltrans will, as part of the Regional Transit Development Program, conduct plan refinement and preliminary engineering in San Bernardino County, and prepare an EIS if required as a result of the plan refinement effort. NEW

Regional Transit Development Program: Facility Improvements*

Element I - Transportation System Management (TSM)

22. Appropriate transit operators will:

    a) maintain and rehabilitate the existing fleet and fixed facilities (null system);

    b) expand the local service fleet by several hundred additional buses by 1983 (650 additional buses for SCRTD, and additional buses for other transit operators in accordance with Short Range Transit Plan expansion options).

    c) implement priority service improvements on arterials (see TSM actions);

    d) expand community level services as demand warrants.

Element II - Freeway Transit

23. Caltrans, local agencies, and appropriate transit operators will:

    a) place in express service more than 600 high capacity buses to provide a high level, bus rapid transit system over the regional freeway network;

    b) To achieve the desired high level transit service (35 to 55 mph speeds), either meter mixed flow freeway traffic to freeflow condition or where extreme congestion warrants, construct between 39 and 81 miles of exclusive busway facilities;

    c) integrate into the system 24 additional miles of busway facility to be built in conjunction with new highway construction projects (I-105 and Route 7); and integrate with the existing 11 mile exclusive El Monte busway facility;

    d) construct between 62 and 101 on-line and freeway-to-freeway stations depending on the alternatives evaluation findings

    e) construct park-and-ride lots where needed.

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* Phasing

Implementation depends upon federal and local approval of preliminary engineering results, development of a local funding source, state and federal funding approvals. Tentative dates are:

a) Plan Refinement Elements I, II, and IV: September 1978.
b) Completion of Element III, preliminary engineering: November 1978.
c) Preliminary Engineering Elements I, II, and IV: 1980.

Element III - Los Angeles Downtown People Mover

24. The City of Los Angeles will construct a 2.67-mile automated guideway people mover extending through downtown City of Los Angeles from Union Station in the North to the LA Convention Center in the South (interfacing with intercity rail, rail rapid transit (RTDP Element IV and the freeway transit system (Element II).

Element IV - Regional Core Rapid Transit

25. Caltrans, local agencies, and appropriate transit operators will:
    a) design a grade separated rapid transit facility serving the high activity Wilshire-North Hollywood corridor where no freeway is located;
    b) consider alternatives to include heavy rail and bus on exclusive guideway;
    c) develop a regional core system to be integrated with the freeway transit and downtown people-mover elements of the RTDP.

Los Angeles-San Diego Corridor

26. Implement transit improvements in the inter-regional Los Angeles to San Diego Corridor as described below.

    Short range actions through 1980

    Caltrans, local agencies, and appropriate transit operators will:

    a) Expand existing private operator fleet by 10 vehicles, including higher-capacity 64-seat buses.

    b) Expand frequency of express service between primary centers -- Los Angeles, Long Beach, San Diego -- by about one-third.

    c) Legislatively authorize demonstration programs for inter-regional bus improvements, using preferential treatment lanes where available.

Medium range actions through 1985

Caltrans, local agencies, and appropriate transit operators will:

a) Expand private operation fleet by 18 vehicles, including four higher-capacity 64-seat buses.

b) Expand frequency of express service between the following secondary centers: Van Nuys, LAX, San Bernardino, Riverside, and Escondido.

c) Introduce an additional express route: Van Nuys-Inglewood-San Diego.

d) Increase service frequency overall by about 39% over the short-range program.

e) Improve access to bus stations at Anaheim, Santa Ana, Van Nuys, and San Clemente.

f) Construct new, near-freeway terminals at Santa Ana, Inglewood/LAX, and Van Nuys.

6.3.6
Transit Financial Review

Short Range Transit Plan

Two short range transit plan alternatives were prepared by most operators: a status quo plan, and an expanded service plan.

The status quo plan, shown in Table 6.3-1, was developed to also be financially constrained in each county except Los Angeles, where the SCRTD plan exceeds reasonable estimates of funds available by a cumulative $40 million. The implication is that for SCRTD, a financially constrained plan involves service reductions and fare increases.

This status quo plan calls for cumulative capital expenditures of $550.5 million and operations expenditures of $1.759.3 million in the next five years.

The Short Range Transit Plan - Unconstrained Expension Plan shown in Table 6.3-2, calls for expansion of the RTD fleet by 750 buses, from a current 2210 to 2960 by 1983. Except for OCTD, only moderate fleet expansions are proposed by other operators in the region. This plan calls for capital expenditures of $657.5 million, an increase of 38% over the status quo plan. Operations expenditures during the 5-year time period will total $2,068.9 million. The total of capital and operations expenditures in this plan alternative exceed estimates of available funds by $180.9 million.

SCAG Region Short-Range Transit Plan Financial Summary

Five Years FY 1978-79 Through FY 1982-83

(Thousands of Dollars)

Status Quo

Expenditures	SCRTD	L.A. County Muni Operators	Total L.A. County	Orange County	Riverside County	San Bernardino County	Ventura County	Total
Capital	365,200.0	51,596.7	416,796.7	120,680.3	8,967.7	3,507.9	557.0	550.509.6
Operating	1,258,390.0	151,196.6	1,409,586.6	267,948.1	33,038.6	35,999.9	12,695.0	1,759,268.2
TOTAL	1,623,590.0	202,793.3	1,826,383.3	388,628.4	42,006.3	39,507.8	13,252.0	2,309,777.8
Sources of Funds								
UMTA Sec. 5	352,780.0	37,854.8	390,634.8	111,016.3	7,324.3	16,006.9	4,158.0	529,140.3
UMTA Sec. 3	271,590.0	24,862.4	296,452.4	85,123.2	5,608.6	2,806.3	0	389.990.5
SB 325	431,850.0	70,398.9	502,248.9	113,573.1	20,074.6	11,151.7	5,808.5	652.856.8
County Subsidy	0	425.0	425.0	0	0	0	0	425.0
Local General Funds	0	10,161.9	10,161.9	18,250.0	698.0	0	0	29,109.9
Operating Income	500,060.0	44,928.0	544,988.0	37,409.8	4,107.1	3,361.0	3,095.5	592,961.4
Other	27,500.0	14,183.7	41,683.7	23,256.0	4,224.2	6,181.9	190.0	75,535.8
TOTAL	1,583,780.0	202,814.7	1,786,594.7	388,628.4	42,036.8	39,507.8	13,252.0	2,270,019.7
SURPLUS (DEFICIT)	(39,810.0)	21.4	(39,788.6)	0	30.5	0	0	(39,758.1)

table 6.3-1

SCAG Region Short Range Transit Plan Financial Summary

Five Years FY 1978-79 Through FY 1982-83

(Thousands of Dollars)

Expansion

Expenditures	SCRTD	L.A. County Muni Operators	Total L.A. County	Orange County	Riverside County	San Bernardino County	Ventura County	Total
Capital	469,005.0	52,901.7	521,906.7	120,680.3	9,493.7	3,507.9	1,863.0	657,451.6
Operating	1,551,155.0	155,623.6	1,706,778.6	267,948.1	41,602.9	35,999.9	16,541.4	2,068,870.9
TOTAL	2,020,160.0	208,525.3	2,228,685.3	388,628.4	51,096.6	39,507.8	18,404.4	2,726,322.5
Sources of Funds								
UMTA Sec. 5	352,780.0	39,297.8	392,077.8	111,016.3	7,347.3	16,006.9	7,230.5	533,678.8
UMTA Sec. 3	356,915.0	25,906.4	382,821.4	85,123.2	5,914.5	2,806.3	0	476,665.4
SB 325	431,850.0	72,145.9	503,995.0	113,573.1	26,904.6	11,151.7	7,368.7	662,993.1
County Subsidy	0	425.0	425.0	0	0	0	0	425.0
Local General Funds	0	10,161.9	10,161.9	18,250.0	991.0	0	0	29,132.9
Operating Income	583,740.0	46,428.0	630,168.0	37,409.8	5,584.0	3,361.0	3,605.3	680,128.1
Other	114,000.0	14,183.7	128,183.7	23,256.0	4,345.7	6,181.9	190.0	162,157.3
TOTAL	1,839,285.0	208,548.7	2,047,833.7	388,628.4	51,087.4	39,507.8	18,394.5	2,545,451.8
SURPLUS (DEFICIT)	(180,875.0)	23.4	(180,851.6)	0	(9.1)	0	(9.9)	(180,870.6)

table 6.3-2

Regional Transit Development Program

The Regional Transit Development Program as most recently proposed will cost approximately $2,850 million in 1978 dollars for the capital improvements to be made in Los Angeles County in addition to the existing (null) system capital replacement costs of $433 million (Table 6.3-3). The capital program funding requirements, in escalated dollars, will total $4,515 million assuming an implementation time of 1983 for the TSM element, 1982 for the downtown circulation distribution system, 1990 for the freeway transit and 1987 for the starter line element. Full federal participation by UMTA and FHWA in the capital program would amount to $3,695 million with a local share requirement of $834 million.

The RTDP capital funding example shown in Table 6.3-3 shows how the Regional Transit Development Program might be funded. It is assumed that FHWA will provide the federal share of busway related improvements on Federal Aid Interstate routes, as well as funding for some parking facilities. For the remainder of the busway improvements and all other system capital improvements, it is assumed that UMTA will provide funding on 80% to 20% matching basis.

To place the magnitude of this assumed federal funding in some perspective, the $664 million from FHWA represents an increase of about 50% over what the current CALTRANS highway program indicates might be programmed to the region in that time period. Similarly, the UMTA Section 3 contribution to the RTDP of $3.0 billion exceeds by some 200% the share of the national amount of funds which the region might expect based on a population formula distribution. Such favoritism toward Southern California by these federal agencies, although not necessarily impossible, cannot be taken for granted.

Given the assumed federal participation in the capital program, the local matching requirement will be $931.2 million. For the purposes of this example, it is assumed the state highway funds will be made available both to match the FHWA contribution and at the legal Prop. 5 level. Of the total State Article XIX funds thus required, $115 million is currently reserved for Prop. 5 purposes in the CALTRANS Planning Program. This funding example also assumes that about 15% of the TDA (SB 325) transit funds will be made available for capital. $345 million dollars remains as the requirement for additional local matching funds.

The funding requirements for the RTDP system operations are both greater and more immediate than construction cost requirements (see Table 6.3-4). Latest SCAG projections show an unfunded operating deficit of $238.7 million by FY 1990, when the four elements of the RTDP will be fully operational.

To provide additional funds for the RTDP capital program and to fund the expanded system operations as presently planned, a new funding source must be provided which will provide a cumulative $1.9 billion during the twelve years FY 1979 thru 1990 -- and provide an annual funding level of about $270 million in 1990. This amount could be raised by a 1/3 cent sales tax. Currently, in Los Angeles, the County Transportation Commission is authorized to impose a 1/2-cent sales tax upon voter approval.

Regional Transit Development Program

Projected Capital Expenditures and Sources of Funds

Los Angeles County Portion

($Millions)

Expenditures	Dollars	Actual Outlay During Implementation 1979 to 1990
Element I (Status Quo)	433.0	646.1
(TSM Expansion)	102.4	130.9
Element II Freeway Transit	981.1	1815.2
Element III Downtown People Mover	141.5	165.4
Element IV Regional Core Rapid Transit	1192.4	1757.6
Total Expenditures	2850.4	4515.2
Sources of Funds		
FHWA		664.1
UMTA Section 3		3011.4
Article XIX. State Prop. 5		177.8
State Other		74.9
TDA (SB 325)		241.7
Funds Potentially Available		4169.9
Additional Local/State Funds required		345.3
Total Funds		4515.2

table 6.3-3

Regional Transit Development Program

Estimated Annual Operating Costs

Los Angeles County Portion

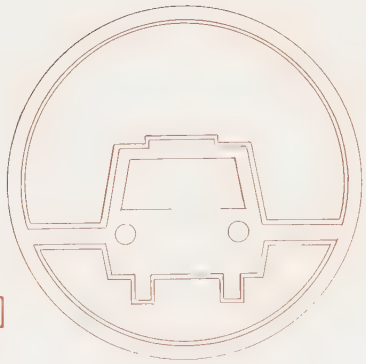
($Millions)

Operating Costs	1990 Annual
Element I Status Quo (78 System)	540.3
Element I TSM	183.2
Element II Freeway Transit	136.4
Element III Downtown People Mover	8.2
Element IV Regional Core Rapid Transit	51.6
	919.7
Sources of Funds	
Operating Revenues	383.1
UMTA Section 5	96.8
TDA (SB 325)	168.4
Potentially Available Funds	648.3
Additional Funds Required	271.4
Total Funds	919.7

table 6.3-4

highways

6.4



6.4.
HIGHWAYS

This chapter discusses the regional highway system. Section 6.4.1 describes the existing regional highway system; and Section 6.4.2 describes the process for programming State highway improvements under AB 402. Beginning with Section 6.4.3, highway programs affecting the SCAG region and issues relating to highway planning and programming are identified.

System management and system development (subregional/regional state highway priorities) actions are in Sections 6.4.5 and 6.4.6, respectively. Operational improvement and preferential treatment actions are found in SCAG's Rideshare Program (Section 6.1.1).

The discussion on financing state highways identifies and analyzes financial issues (Section 6.4.7).

6.4.1
The Existing Regional Highway System

As a matter of policy, only state highways are considered as regionally significant. State highways include both freeways and non-freeways (expressways, controlled access highways, and conventional highways).

Figure 6.4-1 illustrates the existing regional highway system, and Table 6.4.1 notes existing state highway mileage -- by county, by Caltrans district, and for the SCAG region.

Existing State Highway Miles

Counties	Freeway Miles	Non-Freeway Highway Miles	Total
Los Angeles	491	454	945
Orange	120	111	233
Ventura	86	174	260
District 7	697	739	1436
Riverside	136	294	430
San Bernardino	413	786	1199
District 8	549	1080	1629
Riverside	112	153	265
Imperial	97	310	407
District 11	209	463	672
SCAG Region	1455	2282	3737

table 6.4-1

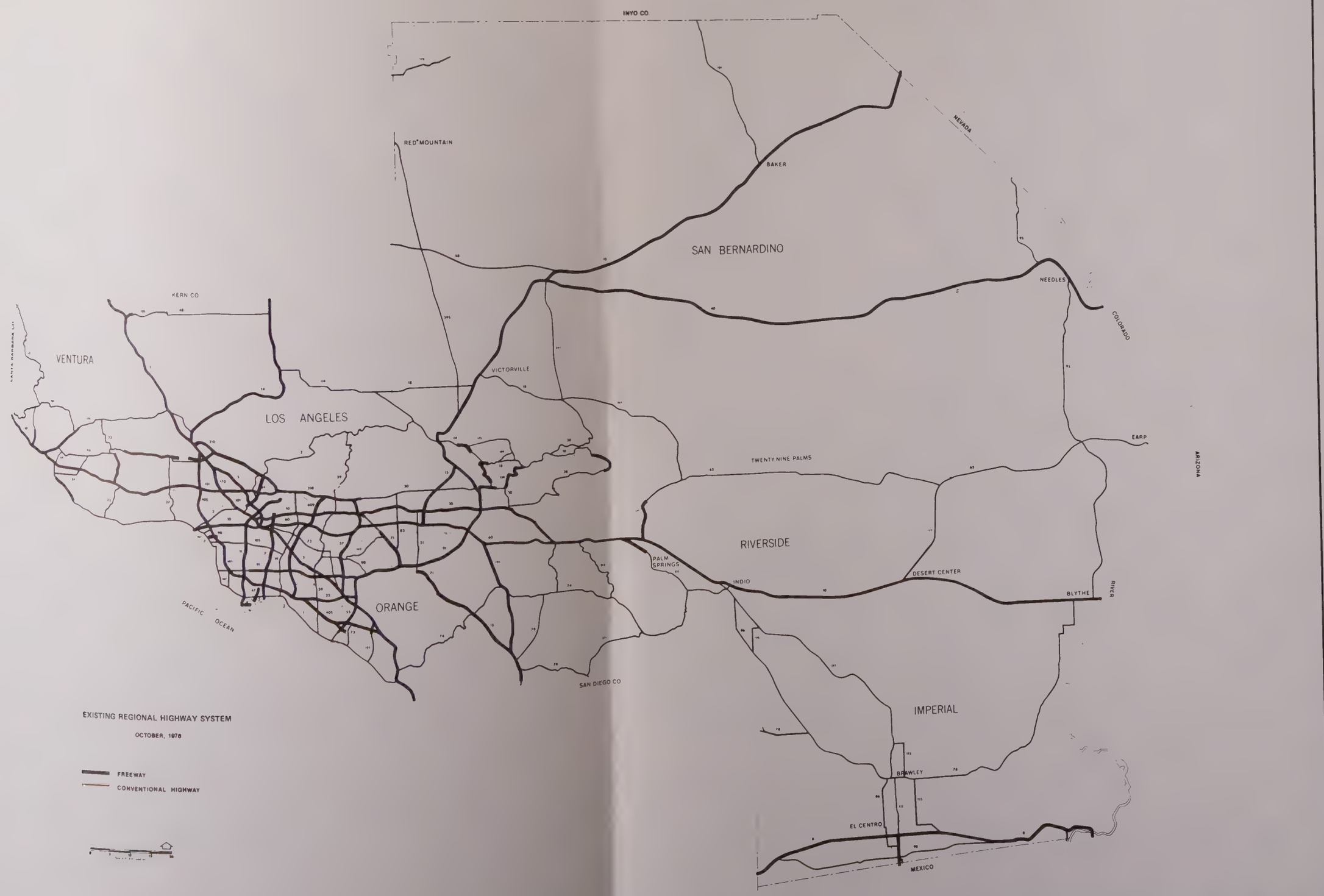

INYO CO.
NEVADA
RED MOUNTAIN
BAKER
SAN BERNARDINO
NEEDLES
COLORADO
KERN CO
VENTURA
VICTORVILLE
LOS ANGELES
EARP
ARIZONA
TWENTY NINE PALMS
RIVERSIDE
PALM SPRINGS
INDIO
DESERT CENTER
BLYTHE
RIVER
ORANGE
PACIFIC OCEAN
SAN DIEGO CO
IMPERIAL
BRAWLEY
EL CENTRO
MEXICO
EXISTING REGIONAL HIGHWAY SYSTEM
OCTOBER, 1978
FREEWAY
CONVENTIONAL HIGHWAY

figure 6.4-1

6.4.2
Programming Highway Projects under AB 402

The state's new transportation law, the Alquist-Ingalls Act of 1977 (AB 402), significantly alters the process of programming state highway improvements. Under the act, the state legislature will appropriate funds to specified program categories with the California Department of Transportation (Caltrans) having the ability to transfer up to 10% of such funds between programs upon approval by the California Transportation Commission (CTC).

The budget will be developed from the adopted state TIP -- a five year blueprint of transportation improvements. The state highway portion of this TIP replaces Caltrans' previously used Multi-year Planning Program. AB 402 prescribes that the California Transportation Commission adopt, as the state TIP, regionally adopted TIPs unless specified findings are made as to overriding statewide interest, insufficient funds, or regional TIP conflict.

To facilitate the TIP process estimates of the state highway funds available to each county in the SCAG region will be provided by the California Transportation Commission. The methodology for making these estimates must be determined by the Commission in cooperation with Caltrans and local and regional transportation agencies. Table 6.4-2 presents the various deadlines specified in AB 402 for the new state highway programming process.

6.4.3
Highway Programs Affecting the SCAG Region

State Highway programs that affect SCAG's highway planning effort and encompass system management and system development actions are:

Maintenance and Rehabilitation
Operational Improvements
New Facilities
Local Assistance

These are some of the capital outlay programs (appropriation categories) identified in AB 402 for State Highway Account funds. Under AB 402, County Transportation Commissions and local and regional agencies can program and make tradeoffs between the Operational Improvements Program and New Facilities Program and their respective subprogram categories. The other programs identified in AB 402--Administration, Program Development, and Operations-- are administrative programs of Caltrans, and therefore will not be discussed in this section.

A brief definition of each of the highway programs that impact the SCAG region follows. Program definitions are based upon the Department's (State Department of Transportation) program definition manual.

TIMETABLE FOR STATE HIGHWAY PROGRAMMING

TIME LINE	TIP PROCESS	BUDGET PROCESS
1978		
April through September	CTC develops methodology for making state highway fund estimates.	
October 1	Caltrans prepares fund estimates based on CTC methodology.	
November 1	CTC adopts and provides fund estimates to local and regional transportation planning agencies.	
December 1	Caltrans submits proposed State TIP consistent with fund estimates.	
1979		
January		State Highway Budget Proposed for FY '80. Legislative review.
February 15		CTC submits evaluation of proposed budget to Legislature.
April 1	Local and regional TIPs submitted consistent with fund estimates.	
June		Budget adopted for FY '80 setting program levels.
July 1	CTC adopts local and regional TIPs as State TIP unless specified findings are made.	CTC allocates budgeted program levels to projects in the State TIP.
August 1	Appeals regarding the State TIP are due.	
August 15	Public hearing on appeals must be held.	
October 1	Caltrans prepares new fund estimates.	

table 6.4-2

- Maintenance and Rehabilitation

  As highway facilities age or become damaged, they become more costly to maintain. This program deals with keeping the existing system in a safe and usable state by repairing deteriorated or damaged facilities. As owner/operator, the Department has the authority to program and implement maintenance and rehabilitation projects.

- Operational Improvements

  This program deals with making the operation of the existing highway system more efficient and keeping it intact to retain the value of the public's investment. Some of the projects within this program are HOV projects; community and school noise attenuation projects; safety, compatibility, and traffic operational improvements.

- New Facilities

  This program involves the construction of highways on a new alignment to supplement or replace existing facilities; the addition of new lanes to existing facilities to accommodate increasing volumes of traffic; and the construction of highways to serve new areas and assist in the appropriate development of the region.

- Local Assistance

  This program element provides the administration, coordination and control required by Federal and State legislation in furnishing financial assistance to City and County transportation programs. These programs support the Highway Transportation Program in providing a response to the public need for safe, serviceable and comprehensive city and county transportation service. Local assistance includes: Federal-Aid Secondary, City and County Urban Extensions, TOPICS, Railroad Crossings, Unassigned Local Assistance, Federal-Aid Urban System, Bicycle Facilities, Highway Safety Improvement on Local Roads, and Off-System Roads.

6.4.4 Current Issues

Over the past few years, the following trends have been evident: high priority projects have not moved forward; back-up projects have not been provided; there has been an increasing emphasis on compatibility projects (sound walls and sound attenuation; landscaping); and legally required funding has not been provided. The following issues will be discussed below: (a) the inability to get projects ready for construction; (b) selecting AB 402 fund estimation methodology; (c) the 1977 "Now" Needs Study; and (d) the treatment of missing link projects.

Inability to Get Projects Ready for Construction

The process of getting a highway project ready for construction has been lengthened by such problems as not being able to begin preliminary project or engineering studies, not being able to acquire right-of-way for project construction, and delays in obtaining final environmental clearance.

In preparing the Regional TIP under AB 402, SCAG and County Transportation Commissions should have the ability to program projects to undergo preliminary engineering studies, as part of the long-range planning function, and pursuant to project implementation being scheduled in the next five-year period.

Selecting AB 402 Fund Estimation Methodology

The controversy between Caltrans' headquarters and the local planning agencies over this issue centers on how to estimate the regional, district, and county shares of the state administered highway funds. These funds are principally the Federal-Aid Interstate, Federal-Aid Primary, and State Only funds. The planned expenditure of these funds has traditionally been shown in Caltrans's Planning Programs. AB 402 requires that the methodology for determining the regional and county breakdown of these funds be determined by the California Transportation Commission in consultation with Caltrans, the transportation planning agencies, and the county transportation commissions.

Caltrans proposed methodology for making the fund estimates for state highways under AB402 utilizes the 1976 and 1977 Six-Year Planning Programs, thus perpetuating Caltrans' past decisions on the distribution and expenditure of highway funds.

1977 "Now" Needs Study

Section 188.8 of the Streets and Highways Code requires Caltrans to prepare, every four years, an estimate of existing state highway construction needs. The study is used to set the legally required minimum expenditure on right-of-way, construction and reconstruction in each transportation district of the state.

Individual jurisdictions within the region as well as SCAG's Transportation and Utilities and Executive Committees have commented critically on the amount of state highway expenditures programmed for the region when compared to state highway revenues generated and existing state highway needs. Concern has also been expressed over the methodology used to compile the 1977 "Now" Needs study. The philosophy and methodology of the study resulted in a dramatic decline, between 1974 and 1977, in the measurement of new construction need in the region. This decline was particularly significant in Los Angeles, Ventura, and San Bernardino Counties. In some cases the decline in new construction need was due to the deletion of proposed highways from the state highway system. Legal opinion prevented the deletion of the Beverly Hills Freeway in western Los Angeles from being offset by the addition to the study, of the Wilshire Corridor Starter Line despite the fact that Proposition 5 funding for the

Starter Line would count toward meeting the state highway district minimum. In other instances, state highway improvements were deleted or downscoped in the 1977 Study in opposition to regional priorities and policies. For these reasons SCAG opposes the use of the 1977 Needs Study for setting the district minimum percentages in state highway funding.

Definition of Missing Links Projects

A "missing link" is: a section of roadway to be constructed to freeway or expressway standards connected to completed portions of a designated route or connecting a constructed portion of a designated route to one other major facility where the proposed sections is less than six miles in length and provides a continuity of service in an established travel corridor (1977 RTP, p. 4-63).

6.4.5
System Management Actions*

System management actions are directed toward making more efficient use of the existing highway system. Generally, these actions are not as capital intensive as system development actions.

1. Implement maintenance and rehabilitation activities as appropriate to ensure complete utilization of the existing State highway system.

2. Implement a traffic management program to obtain maximum efficiency of the existing system.

3. Implement safety improvements as necessary to ensure a safe highway system.

4. Implement improvements necessary to ensure compatibility with the environment.

5. Preliminary engineering and environmental evaluation for the highway related element of the Regional Transit Development Program will be conducted, and Highway portions of the RTDP based on the results should be implemented.

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* See Section 6.1.1 for highway-related ridesharing actions.

6.4.6
System Development Actions

This section lists state highway construction priorities submitted by county transportation commissions, VCAG and IVAG (see Table 6.4.3)*. These priorities include only new freeways/expressways, missing links, and widening projects that exceed $200,000 in cost. From these lists a regional list of priorities will be developed using the evaluation methodology found in Appendix E. These priorities will be used as guidelines for establishing priorities for major state highway projects in the FY 1979-1980 TIP.

Table 6.4-3 replaces Table 6.4-2, Table 6.4-3, and Appendix C of the 1977 Regional Transportation Plan; however, the following statements are retained as follows:

6. SCAG endorses construction of I-105 (with the provision that I-105 will be a freeway/transitway consistent with the Regional Transit Development Program, with ramp metering and bypasses where consistent with appropriate planning) and the upgrading of Routes I-15, 15E, 86 and Route 30.

7. SCAG endorses Route 30 as a top priority construction project for immediate implementation, acquisition of right-of-way and preliminary engineering.

8. Projects on Route 86 and I-15E should be developed and implemented expeditiously to provide safe and efficient movement of people and goods along those travel corridors.

9. SCAG to complete the Highway Evaluation Report and establish priorities for the regional highway system.

* The San Bernardino County Association of Governments and Transportation Commission is developing a list of projects for the 1978 RTP.

PROPOSED NEW FACILITY PROJECTS FOR THE SCAG REGION
IMPERIAL/RIVERSIDE HIGHWAY PRIORITIES

(Source: Imperial Valley Association of Governments)

Priority	Route No.	Project Description	Approximate Length	Fed. System Designation	Cost (Million)
		NEW FACILITIES			
1	86	R10.7/R22.6 South of Indio, from the Jct. of Route 195 near Mecca to 0.2 mile N of Dillon Road 4 lane freeway	11.9	Primary	$22.9
2	86	Imp-R63.5/Riv-R2.8 Near Desert Shores, from 0.5 mile S of Brawley Ave to 0.5 mile S of Ave 81	7.5	Primary	$13.4
3	86	R2.8/R10.7 South of Indio, from 0.5 mile S of Ave 81 to Jct of Route 195 near Mecca 4 lane freeway	7.9	Primary	$13.0
4	86	57.5/63.1 Near Salton City, from 0.3 mile S of Marina Dr N to 0.5 mile S of Brawley Avenue 4 lane expressway	5.6	Primary	$9.1
5	86	41.5/57.5 2 miles S of North Jct Route 78 to 0.3 mile S of Marina Drive N 4 lane expressway	16.0	Primary	$13.6
6	86	21.8/41.5 NW of Brawley, from Brandt to 2 miles S of North Jct Route 78 4 lane expressway	19.7	Primary	$20.6
		REVISED FACILITY			
7	I-8	South of El Centro Revise Interchange at I-8 and Imperial Avenue	0.1	Interstate	

table 6.4-3

TABLE 6.4-3 (Continued)
PROPOSED NEW FACILITY PROJECTS FOR THE SCAG REGION
LOS ANGELES COUNTY HIGHWAY PRIORITIES

Priority	Route No.	Project Description	Approximate Length	Fed. System Designation	Cost (Million)
1	91/11 Artesia Freeway	From Main Street to Route 11, including interchange at Route 11 and Redondo Beach Boulevard.	.5 Mile	FAP	$38
2	I-105 Century Freeway	Connect Route 605 in Downey with Route 1 in El Segundo by constructing 8 lane freeway with provision for transitway.	17.0 Mile	I	$457
3	47 Industrial Freeway	From Willow Street in Long Beach to San Diego Freeway construct 6-lane expressway.	1.1 Mile*	FAU	$10-38
4	30 Foothill Freeway	From Foothill Boulevard to San Bernardino County line (then into San Bernardino to parallel Route 66) Construct 4-lane freeway.	5.3 Mile**	FAP	$25
5	7 Long Beach Freeway	Between Route I-10 and Route I-210 construct 6-lane freeway.	4.5 Mile	FAU	$128
6	90 Marina Freeway Extension	From Lincoln Boulevard to Washington Boulevard with access ramps to Venice Boulevard.	2.3 Mile	FAP	$20

* Some work contemplated to .5 miles south of Willow Street for total distance of 1.6 miles.
** Portion in Los Angeles County.

Table 6.4-3 (Continued)
PROPOSED NEW FACILITY PROJECTS FOR THE SCAG REGION
ORANGE COUNTY HIGHWAY PRIORITIES

(Source: Orange County Transportation Commission)

Priority**	Route No.	Project Description	Approximate Length	Fed. System Designation	Cost (Million)
	ORA-1/Bayside to Bayshore-Dover	Replace bridge and widen to 6 lanes	0.4 Miles	FAU	$ 5.87
	ORA-1/MacArthur to Bayside	Widen to 6 lanes	1.75 Miles	FAP	$ 1.254
	ORA-1/Dover to Newport	Widen to 6 lanes	1.3 Miles	FAU	$ .621
	ORA-5/Route 405 to Route 55	Widen to 8 lanes	7.5 Miles	FAI	$32.6
	ORA-5/Route 55 to Route 22	Widen to 8 lanes and modify 5/55 interchange	5 Miles	FAI	$35.35*
	ORA-5 Route 22 to Euclid Ave.	Widen to 8 lanes	5.5 Miles	FAI	$23.9
	ORA-5/Euclid to L.A. County line	Widen to 8 lanes	5 Miles	FAI	$21.7
	ORA-5/Broadway or Memory Lane	Construct new overcrossing	0.5 Miles	FAU & FAI	N/A
	ORA-5/Vicinity of Main Street	Widen overcrossing and modify interchange	0.5 Miles	FAU & FAI	$ 5.0
	ORA-5/Anaheim-Haster	Reconstruct overcrossing	0.5 Miles	FAU & FAI	$ 4.05
	ORA-5/Knott Ave	Reconstruct with full interchange	0.75 Miles	FAU & FAI	$ 4.0
	ORA-5/Harbor-Ball Road	Reconstruct and widen overcrossing; modify interchange	0.5 Miles	FAU & FAI	$10.815

* ORA-5 Widen from Route 22 = 21.7 million; 5/55 interchange modification = $14.6 million.
** Each of the projects is considered of equal importance.

Table 6.4-3 (Continued)
PROPOSED NEW FACILITY PROJECTS FOR THE SCAG REGION
ORANGE COUNTY HIGHWAY PRIORITIES

(Source: Orange County Transportation Commission)

Priority	Route No.	Project Description	Approximate Length	Fed. System Designation	Cost (Million)
	ORA-5/17th St.	Modify interchange	0.5 Miles	FAU & FAI	$ 3.61
	ORA-5/San Diego County line-North Camino De Estrella	Widen to 8 lanes	6.4 Miles	FAI	$20.0
	ORA-55 Bristol to 15th Street	Construct Freeway	3.5 Miles	FAU	$59.36
	ORA-73/Bonita Canyon to Red Hill	Construct Freeway	2 Miles	FAP	N/A
	ORA-133 Laguna Canyon Road	Widen		FAP	N/A
	ORA-405/at Edwards	Widen Structure	0.5 Miles	FAU	$.60

Table 6.4-3 (Continued)
PROPOSED NEW FACILITY PROJECTS FOR THE SCAG REGION
RIVERSIDE COUNTY HIGHWAY PRIORITIES

(Source: Riverside County Transportation Commission)

Priority	Route No.	Project Description	Approximate Length	Fed. System Designation	Cost (Million)
		District 8 New Facilities			
1	I-15, Magnolia to Route 91	Construct 4 lane freeway	.7 Miles	FAI	$18.0
2	I-15, Route 91 to Route 60	Construct 4 lane freeway	9.8 Miles	.FAI	$65.0
3	I-15, San Diego county line to 1 mile north	Construct 4 lane freeway	1.1 Miles	FAI	$ 5.3
4	I-15, San Jacinto River to Central	Construct 4 lane freeway	3.1 Miles	FAI	$13.5
5	Route 74, Hemet Bypass	Construct bypass through Hemet	6.5 Miles	FAP	$ 6.0
		District 8 Missing Links			
1	I-15E, Perris to Route 60	Convert to 4 lane Freeway	10.9 Miles	FAP	$30.0
2	I-15E, at Ethanac Road	Construct interchange	1.0 Miles	FAP	$1.5
		District 8 Widenings			
1	Route 60, UCR to Main Street	Widen from 4 to 6 lanes	2.9 Miles	FAP	$2.6
2	Route 74, Lake Elsinore to Perris	Widen from 2 to 4 lanes	10.3 Miles	FAP	$5.6

Table 6.4-3 (Continued)
PROPOSED NEW FACILITY PROJECTS FOR THE SCAG REGION
RIVERSIDE COUNTY HIGHWAY PRIORITIES

(Source: Riverside County Transportation Commission)

Priority	Route No.	Project Description	Approximate Length	Fed. System Designation	Cost (Million)
3	Route 71, San Bernardino County line to Route 91	Widen from 2 to 4 lanes	3.4 Miles	FAP	$3.0
4	Route 79, Foothill Road to I-10	Widen from 2 to 4 lanes	6.2 Miles	FAP	$9.0
5	Route 60, Valley Way to Main Street	Widen from 4 to 6 lanes	4.1 Miles	FAP	$4.5
		District 11 New Facilities			
1	Route 86 Imperial County line to Route 195	Convert to 4 lane freeway	10.7 Miles	FAP	$20.0
2	Route 86, Route 195, to .2 mile North of Dillon Road	Convert to 4 lane freeway	11.9 Miles	FAP	$22.9

Table 6.4-3 (Continued)
PROPOSED NEW FACILITY PROJECTS FOR THE SCAG REGION
SAN BERNARDINO COUNTY HIGHWAY PRIORITIES

(To be inserted when received)

Priority	Route No.	Project Description	Approximate Length	Fed. System Designation	Cost (Million)

Table 6.4-3 (Continued)
PROPOSED NEW FACILITY PROJECTS FOR THE SCAG REGION
VENTURA COUNTY HIGHWAY PRIORITIES

(Source: 1977 Ventura County Transportation Plan)

Priority**	Route No.	Project Description	Approximate Length	Fed. System Designation	Cost (Million)
1	Route 126/Santa Paula to Castaic Junction with Highway 5	Widen to 4 lanes conventional highway	...	...	...
(1)	Route 101/ Moorepark Road, Thousand Oaks to Vineyard Avenue, Oxnard	Widen to 6 lane freeway	...	...	...
2	Route 23/New Los Angeles Avenue to Route 118	Complete missing freeway link	...	...	...
(2)	Route 33/end of * freeway, Casitas Spring Road to Encino Drive		...	...	...
3	Route 1 corridor (Oxnard Bypass)		...	...	...
(3)	Route 150, 118, 23, 34, and 232 (Capital Outlay Projects)		...	...	...

* The City of Ojai has not endorsed a by-pass of Oak View.

** Represents grouping of projects into categories rather than project ranking

6.4.7
Financial Analysis and Issues

The following discusses issues regarding state highway finance and programming that must be resolved in the implementation of AB 402, and provides a rough estimate of the region's need for additional resources. Prior to adoption of the 1978 RTP, a more specific financial plan will be developed, based in part on additional project submittals, and the prioritization of submitted projects.

Equity of State Highway Expenditures

As shown in Figure 6.4-2, expenditures on construction and maintenance of state highways in the SCAG region reached a peak of $373 million in FY 71. Mirroring the overall state decline in highway expenditures, the regional level of construction, reconstruction, and improvement fell in FY 76 to a decade low of $170 million, while maintenance expenditures also dropped from a high in FY 75 to $44 million in FY 76 -- a 9.5% decrease. The amounts shown for FY 77 equal those for FY 76 and confirm the trend, identified in last year's RTP, that SCAG counties have lost significant ground with respect to the rest of the state in receiving state highway expenditures. The combined regional share has fallen to 34% of total state highway moneys expended on construction and maintenance -- down from a decade-high share of 42% of the money expended in FY 72.

During the past year, SCAG's financial analysis for state highways has centered on the rate of State Highway User Tax donations -- estimated state highway revenues generated minus actual expenditures -- the region has provided to the other states of the nation and to other counties within California. The graphic "State Highways Expenditures and Revenues 1967-1976" (Figure 6.4-3) shows, for example, that while $8 billion was expended statewide during this ten-year period, $1.15 billion generated in Los Angeles and Orange Counties was spent in other counties of the state.

A description of the flow of these dollars may be found on the reverse side of the graphic.

The amount of state highway dollar donations flowing from the SCAG region has risen sharply over time. Figure 6.4-4 shows these donations for five-year periods beginning with 1947. Based on current Caltrans programming plans, it is estimated that for the five-year period FY 79-FY 83, over one billion dollars generated in the SCAG region will be spent for state highway improvements in other states and in other counties in California.

Figure 6.4-5 places the projected $1.15 billion tax donation into perspective with total estimated Highway User tax dollars generated and currently programmed expenditures. Figure 6.4-5 shows that under projected federal and state levels for state highway support, the region will receive, in expenditures, only 62 cents of each state highway tax dollar generated. This rate of return is down from the estimated return of 70 cents per tax dollar generated during the five-year period FY 67-71.

HISTORICAL EXPENDITURES FOR CONSTRUCTION AND MAINTENANCE
ON STATE HIGHWAYS IN THE SCAG REGION

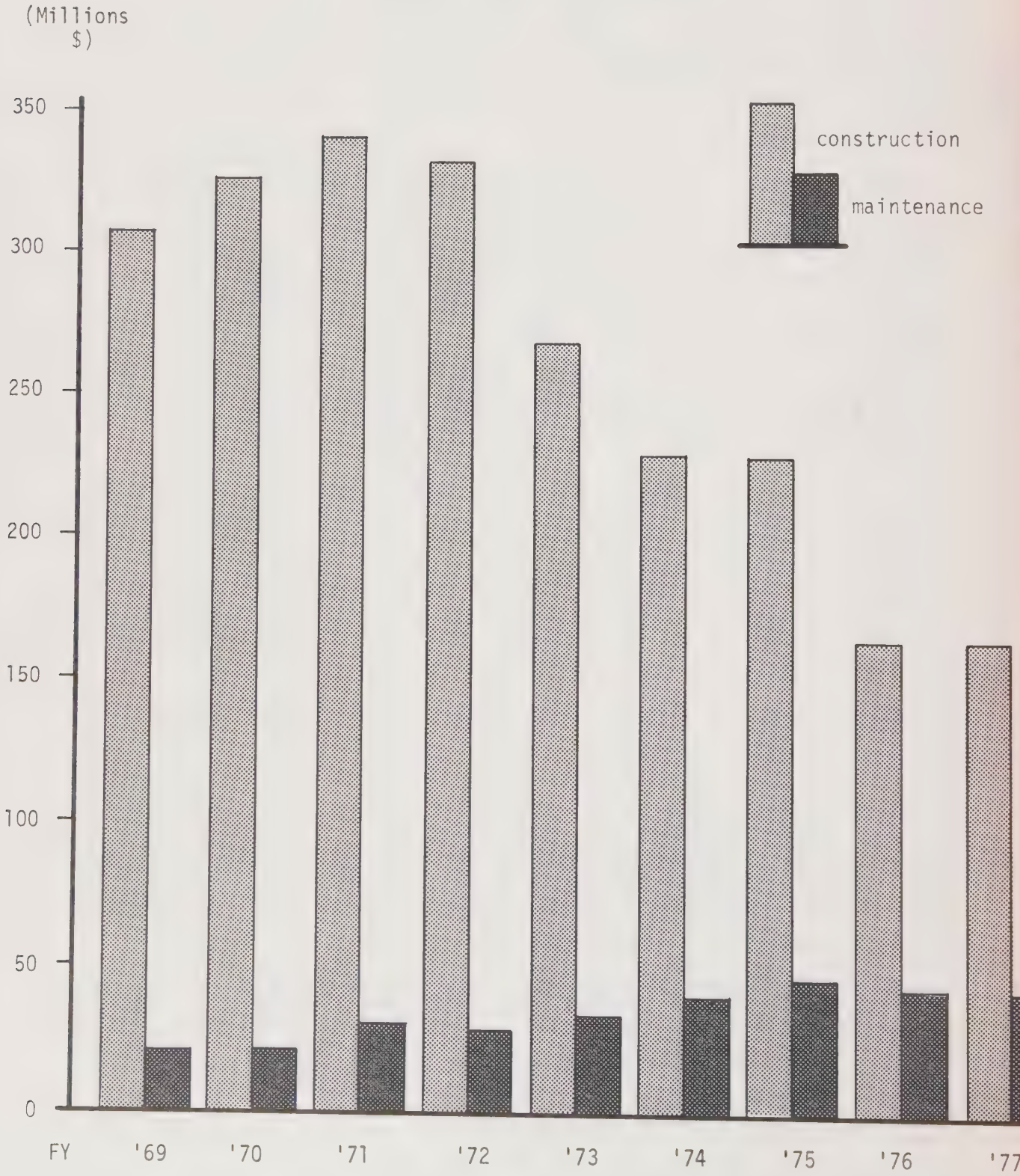

figure 6.4-2

State Highway Expenditures and Revenues

1967-1976

Del Norte
Siskiyou
Humboldt
Trinity
Modoc
Shasta
Lassen
Tehama
Mendocino
Glenn
Butte
Plumas
Lake
Colusa
Sutter
Yuba
Sierra
Nevada
Sonoma
Napa
Yolo
Placer
Marin
Solano
El Dorado
Sacramento
San Francisco
Amador
Contra Costa
Alpine
Calaveras
San Mateo
Alameda
San Joaquin
Santa Clara
Stanislaus
Toulumne
Santa Cruz
Mariposa
Merced
Mono
San Benito
Madera
Monterey
Fresno
Kings
Tulare
Inyo
San Luis Obispo
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Orange
Riverside
San Diego
Imperial

key

I — where expenditures were over 1000% of revenues
II — where expenditures were 400-1000% of revenues
III — where expenditures were 200-300% of revenues
IV — where expenditures approximately equaled revenues
V — where expenditures were 70-80% of revenues
VI — where expenditures were 50-60% of revenues

arrows indicate the intensity of dollar flows

expenditure data as reported by CALTRANS, statement A-8 of the annual report

revenue data are estimates based on CALTRANS, analysis of gasoline consumption by county

all data has been rounded

figure 6.4-3

SCAG
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

STATE HIGHWAY EXPENDITURES AND REVENUES

1967 - 1976

Over the ten year period $8 billion was expended statewide. In terms of dollar flows, $1.15 billion generated in Los Angeles ($900 million) and Orange ($250 million) Counties was spent in other counties of the state. Of the $1.15 billion approximately $525 million flowed to northern counties (an amount equal to the total contribution northern counties made to the North). The remaining $625 million worth of expenditures flowed to southern counties with 40% (or $250 million) of that going to San Diego County. Overall, besides financing their own highway improvements, Los Angeles and Orange County motorists financed 20% of the highway improvements in the other counties of the state.

Looking at the more recent five-year period 1972 - 1976, in terms of expenditures, Orange County received approximately 40% of the revenues it generated while Los Angeles County received 70% of the revenues it generated.

The map was prepared using the information presented below and does not consider monies that California counties as a whole donate to other states of the nation.

County	Expenditures in $ Millions				Revenues Generated	Expenditure/ Revenue Ratio	Classification on map
	Const.	Maint.	Total	% of State	% of State		
Southern Donor Counties							
Los Angeles*	1,685	161	1,847	22.95%	34.000%	.68	V
Orange*	288	39	326	4.05%	7.310%	.55	VI
Sub-Total	1,973	200	2,173	27.00%	41.310%	.65	-
Santa Barbara	86	15	100	1.24%	1.400%	.89	IV
Tulare	47	15	62	.77%	.900%	.86	IV
Total	2,106	230	2,335	29.01%	43.610%	.67	-
Southern Recipient Counties							
Imperial*	72	11	82	1.02%	.440%	2.32	III
Inyo	31	11	42	.52%	.160%	3.25	III
Kern	178	32	210	2.61%	1.970%	1.32	IV
Mono	32	32	64	.80%	.060%	13.33	I
Riverside*	212	31	242	3.01%	2.600%	1.16	IV
San Bernardino*	355	50	404	5.02%	3.600%	1.39	IV
San Diego	710	38	749	9.31%	6.200%	1.50	III
San Luis Obispo	60	15	75	.93%	.563%	1.65	III
Ventura*	167	19	186	2.31%	1.850%	1.25	IV
Total	1,817	239	2,054	25.52%	17.443%	1.46	-
SCAG Total (noted by *)	2,779	311	3,087	38.36%	49.800%	.77	-
Southern Counties Total	3,923	469	4,389	54.54%	61.053%	.89	-
(% of State)	56.00%	44.97%	-	-	-	-	-
Northern Donor Counties							
Alameda	280	54	334	4.15%	4.700%	.88	IV
Butte	25	7	32	.40%	.550%	.73	V
Contra Costa	188	29	217	2.70%	2.900%	.93	IV
Fresno	98	18	116	1.44%	2.230%	.65	V
San Francisco	88	26	114	1.42%	2.500%	.57	VI
Santa Clara	296	27	323	4.01%	5.200%	.77	V
Santa Cruz	27	10	37	.46%	.600%	.77	V
Sonoma	63	15	78	.97%	1.100%	.88	IV
Stanislaus	69	7	76	.94%	1.000%	.94	IV
Total	1,134	193	1,327	16.49%	20.780%	.79	-
Northern Recipient Counties							
Alpine	6	3	9	.11%	.004%	27.50	I
Amador	11	5	16	.20%	.065%	3.08	III
Calaveras	20	6	26	.32%	.080%	4.00	II
Colusa	35	4	39	.48%	.088%	5.45	II
Del Norte	24	6	30	.37%	.082%	4.51	II
El Dorado	35	17	52	.65%	.318%	2.04	III
Glenn	16	3	19	.24%	.140%	2.40	III
Humbolt	132	19	151	1.88%	.500%	3.76	II
Kings	26	4	30	.37%	.320%	1.16	IV
Lake	20	5	25	.31%	.120%	2.58	III
Lassen	17	11	27	.34%	.090%	3.78	II
Madera	45	5	50	.62%	.220%	2.82	III
Marin	59	14	73	.91%	.850%	1.07	IV
Mariposa	14	3	17	.21%	.035%	6.00	II
Mendocino	73	16	89	1.11%	.310%	3.58	II
Merced	45	9	54	.67%	.585%	1.15	IV
Modoc	12	6	18	.22%	.052%	4.23	II
Monterey	94	12	106	1.32%	.950%	1.39	IV
Napa	27	6	33	.41%	.370%	1.11	IV
Nevada	33	14	47	.58%	.174%	3.33	III
Placer	73	17	90	1.12%	.510%	2.20	III
Plumas	16	8	24	.30%	.074%	4.05	II
Sacramento	266	22	288	3.58%	3.200%	1.12	IV
San Benito	14	2	16	.20%	.090%	2.22	III
San Joaquin	189	16	205	2.55%	1.570%	1.62	III
San Mateo	248	29	277	3.44%	2.800%	1.23	IV
Shasta	66	19	85	1.06%	.490%	2.16	III
Sierra	11	7	18	.22%	.013%	16.90	I
Siskiyou	101	17	118	1.47%	.230%	6.39	II
Solano	70	27	97	1.21%	.845%	1.43	IV
Sutter	18	3	22	.27%	.215%	1.26	IV
Tehama	18	9	26	.32%	.195%	1.64	III
Trinity	15	9	24	.30%	.040%	7.50	II
Tuolumne	31	7	38	.47%	.135%	3.48	III
Yolo	81	12	93	1.16%	.500%	2.32	III
Yuba	18	5	23	.29%	.190%	1.53	III
Total	1,979	377	2,355	29.28%	16.450%	1.78	-
Northern Counties Total	3,113	570	3,682	45.77%	37.230%	1.23	-
(% of State)	44.00%	54.65%	-	-	-	-	-
State Total	7,005	1,043	8,048	-	-	-	-

Notes: All data has been rounded and may not add to totals.

The Expenditure/Revenue ratios were rounded to the nearest .1 for ratios less than one and to the nearest 1 for ratios greater than one. Based on its rounded ratio each county was placed in the color classification shown on the front of the map.

The $8 billion expended statewide during the ten year period does not include an additional $1 billion spent on administration ($250 million), Federal Urban and Topics programs ($200 million), and special and miscellaneous activities ($550 million) such as highway planning, tort liability claim payments, air pollution activities, and work done on city and county streets.

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(% of State)	44.00%	54.65%	-	-	-	-	-
State Total	7,005	1,043	8,048	-	-	-	-

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STATE HIGHWAY TAX DOLLAR DONATIONS
SCAG REGION

Five Year Totals FY 1947-FY 1983

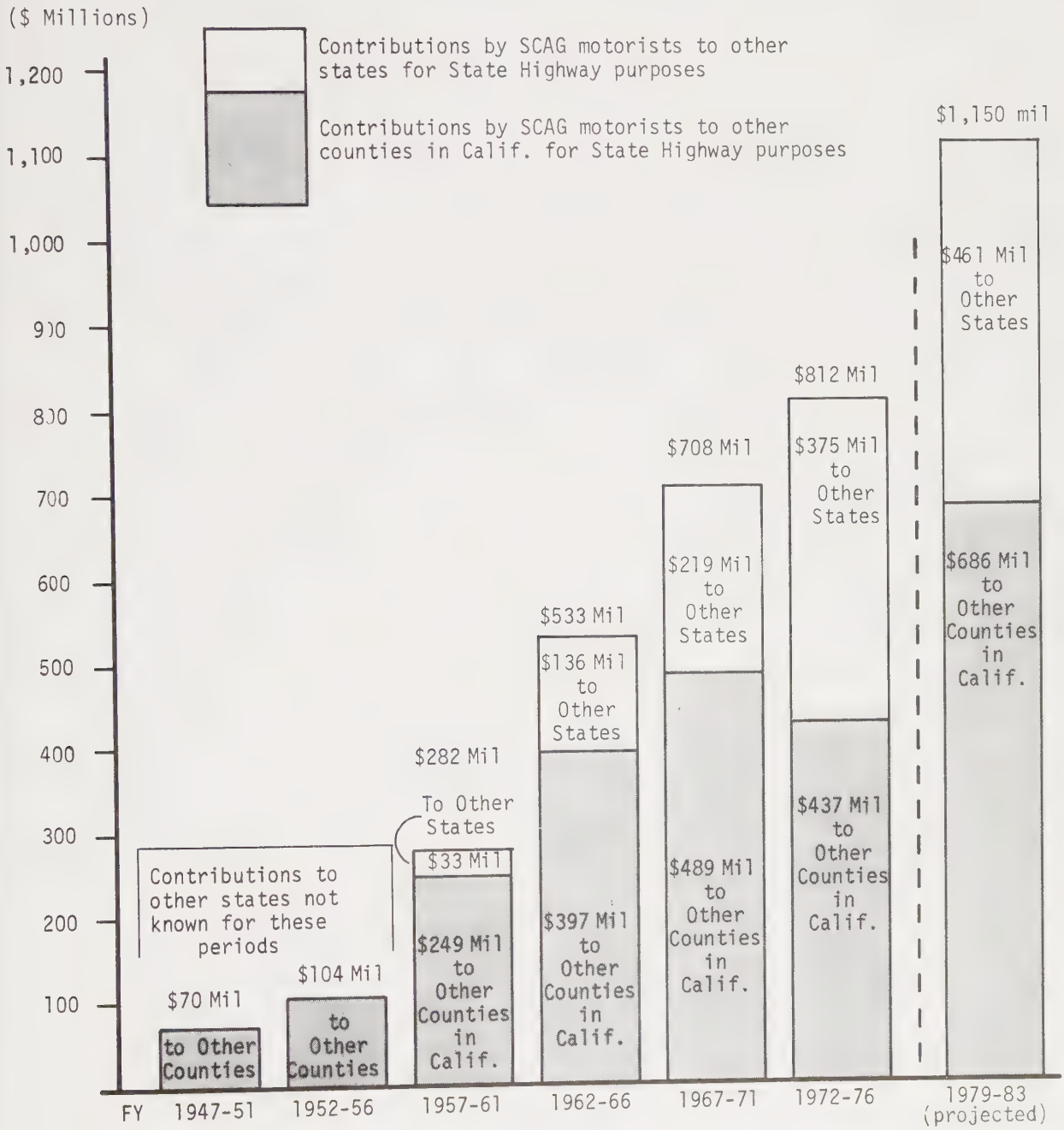


figure 6.4-4

HIGHWAY USER TAX DOLLARS GENERATED
VERSUS PROJECTED EXPENDITURES

SCAG REGION FY 1979-FY 1983

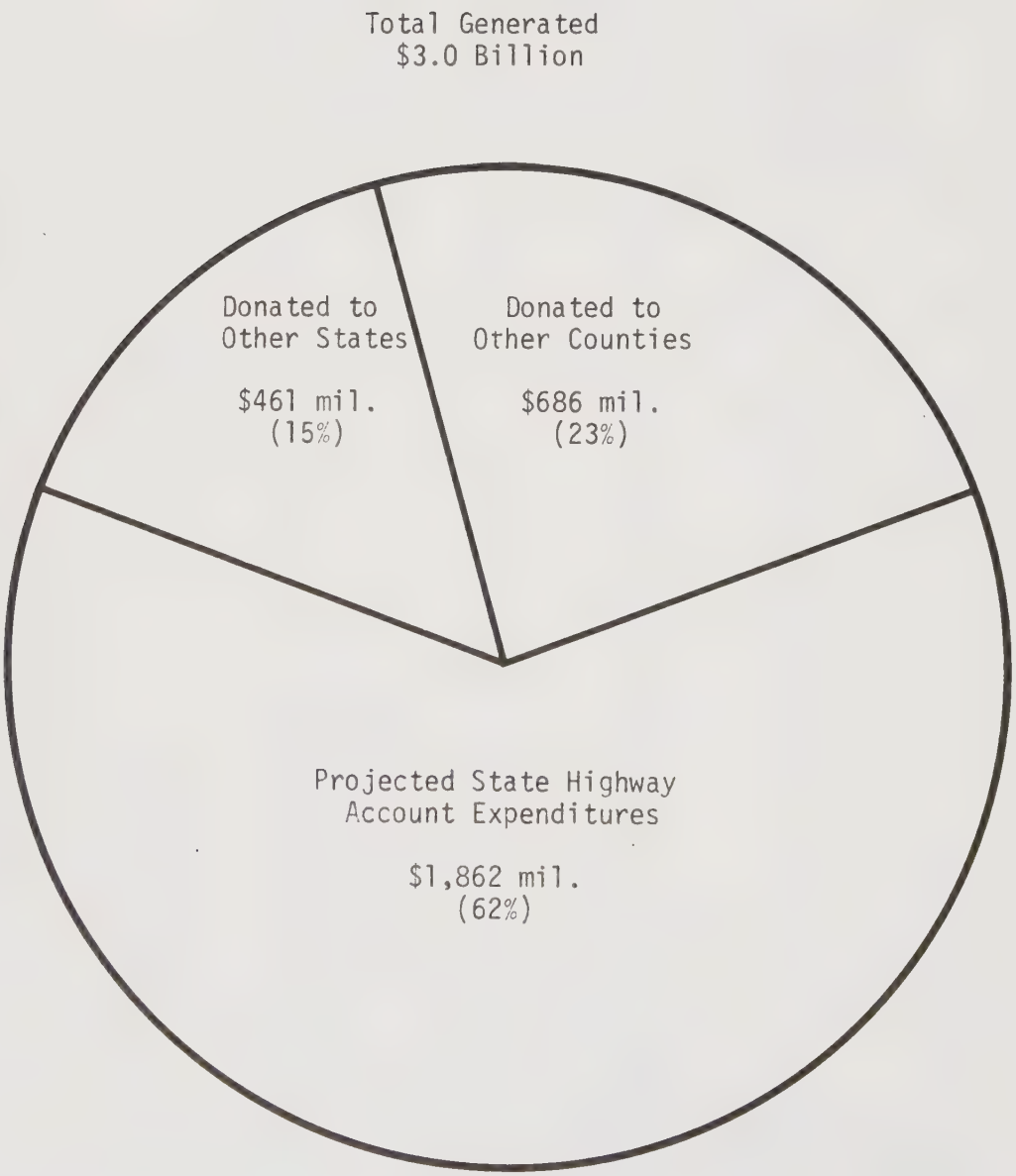


figure 6.4-5

Projected Expenditures vs. the 1977 "Now" Needs Study

One way to measure the need for additional financial resources is to compare projected state highway expenditures to the "Now" Needs Study compiled quadrennially by Caltrans. This study measures existing state highway needs and is used to set the legally required minimum expenditure on right-of-way, construction, and reconstruction in each transportation district of the state. Figure 6.4-6 shows that Caltrans' programmed expenditures on state highways in the SCAG region will fund the equivalent of only 21 percent of the existing state highway needs, as measured by the 1977 "Now" Needs Study.

Potential for Increased Funding

AB 402 does not revise existing state law requiring a North/South division, and district minimum expenditure of state highway construction funds. These geographical requirements, when combined with the amounts available in the Federal-Aid funding pots (Interstate, Primary, Urban), constrain the California Transportation Commission's ability to reprogram highway projects. The Southern California Association of Governments has determined, however, that (although there are definite statewide tradeoffs which must be made in determining funding levels) the California Transportation Commission does retain sufficient flexibility to increase the amount of highway expenditures programmed in the SCAG region. For example, through accelerated state cash financing and minimal North/South Interstate, Primary and State-Only funding shifts, an increase of $91 million could be made available in Primary and State-Only funds to the SCAG region for the five-year period FY 79-FY-83. This would represent a 10% increase to the current SCAG capital outlay program.

The California Transportation Commission could also provide an additional $145 million to the SCAG region, to reach the region's legal "maximum" funding level.* Such an increase would, however, have significant impacts on interstate funding in San Diego County.**

Programmed Expenditures vs. Required District Minimums

As demonstrated earlier, the SCAG region fails to receive an equitable share of state highway funds. Moreover, Caltrans estimates that it will

---

* This legal "maximum" funding level assumes the SCAG region receives all Southern California discretionary moneys and that the SCAG portion of District 11 (Imperial and parts of Riverside Counties) receives a proportionate share of District 11's district minimum.

** A complete discussion of alternative capital outlay funding levels and their impacts may be found in the report, "1978 Financial Plan for State Highways, Background Analysis and Discussion".

fail to expend the legally prescribed* district minimum during FY '76-FY '79 for State Transportation District 7 (Los Angeles, Orange and Ventura Counties). The estimated shortfall is approximately $60 million. Compounding this projected violation of state law has been a growing imbalance in the legally required expenditure between Northern and Southern California.

To alleviate this shortfall, and to prevent further shortfalls from occurring, a broad-based project development process, as well as specific actions taken to reimburse the shortfall to District 7, must be developed with the concurrence of the Los Angeles and Orance Counties Transportation Commissions and the Ventura Council of Governments.

Projected Funding Gap for New Facilities Construction
(State Highways Only)

Figure 6.4-7 shows estimated levels of support for capital improvements for state highways in the SCAG region. Estimates are for the two five-year periods, FY '79-'83 and FY '84-'88.

Revenue estimates assume a return to the region of approximately 50%** of the projected capital outlay in the state. Though feasible under current funding provisions of state law, such a return would require, in implementation activities, a more intensive and broader-based project development effort than is now under way by Caltrans. For example, the plan estimates $1140 million available for the period FY '79-'83, compared with the $854.1 million included in the Caltrans 1977 Six-Year Planning Program.

Expenditures are estimated for the following program categories: maintenance and rehabilitation, operational improvements, and new facilities. Estimates for the first two categories correspond generally to the amounts included in the Caltrans Six-Year Planning Program. For illustration purposes, the additional dollars that would be made available to the region, given "maximum" legal funding, are dedicated to new facilities.

Even under these conditions, the funding level shown for new facilities would not be sufficient to fund all projects submitted to SCAG for inclusion and prioritization in the Regional Transportation Plan (see Table 6.4-3). Based on the projects submitted to date, a deficit of approximately $700 million would be projected -- which, if funded,

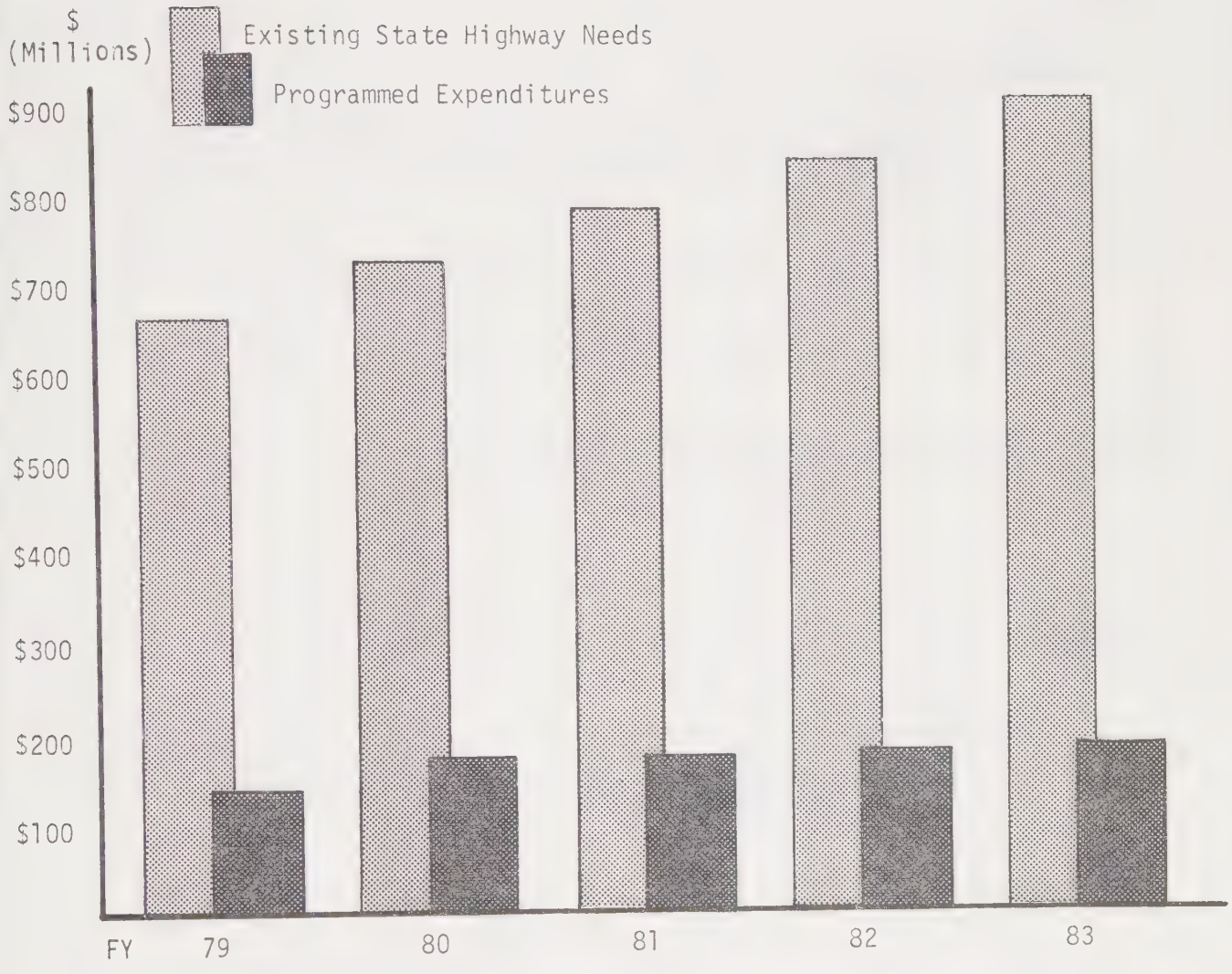
---

* Section 188.8 of the Street and Highways Code

** The estimated 50% would represent an equitable return of funds to the SCAG region, given that the region generates about 50% of the state's gas tax revenues. In addition, the resulting revenues would be approximately equal to the legal "maximum" funding levels discussed above.

COMPARISON OF EXISTING STATE HIGHWAY
NEEDS TO PROGRAMMED EXPENDITURES

SCAG Region--FY 79-FY 83

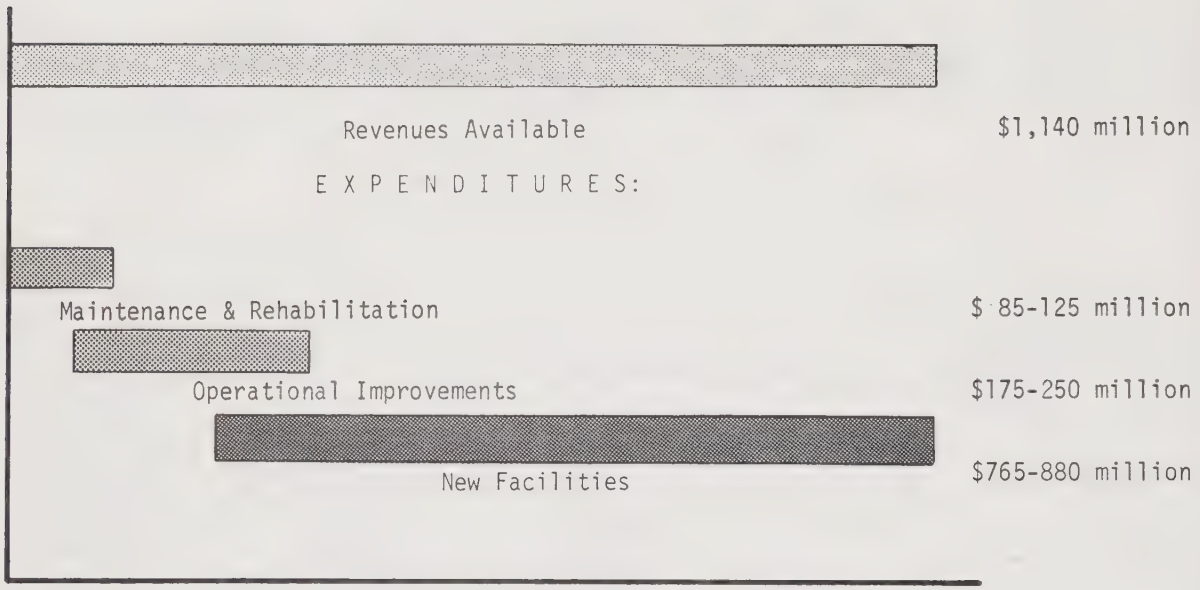


Note: Existing State Highway Needs are escalated at 8% over the five-year period.

figure 6.4-6

FINANCIAL PLAN FOR STATE HIGHWAY CAPITAL IMPROVEMENTS
(SCAG REGION)

FY 1979 - FY 1983



FY 1984 - FY 1988

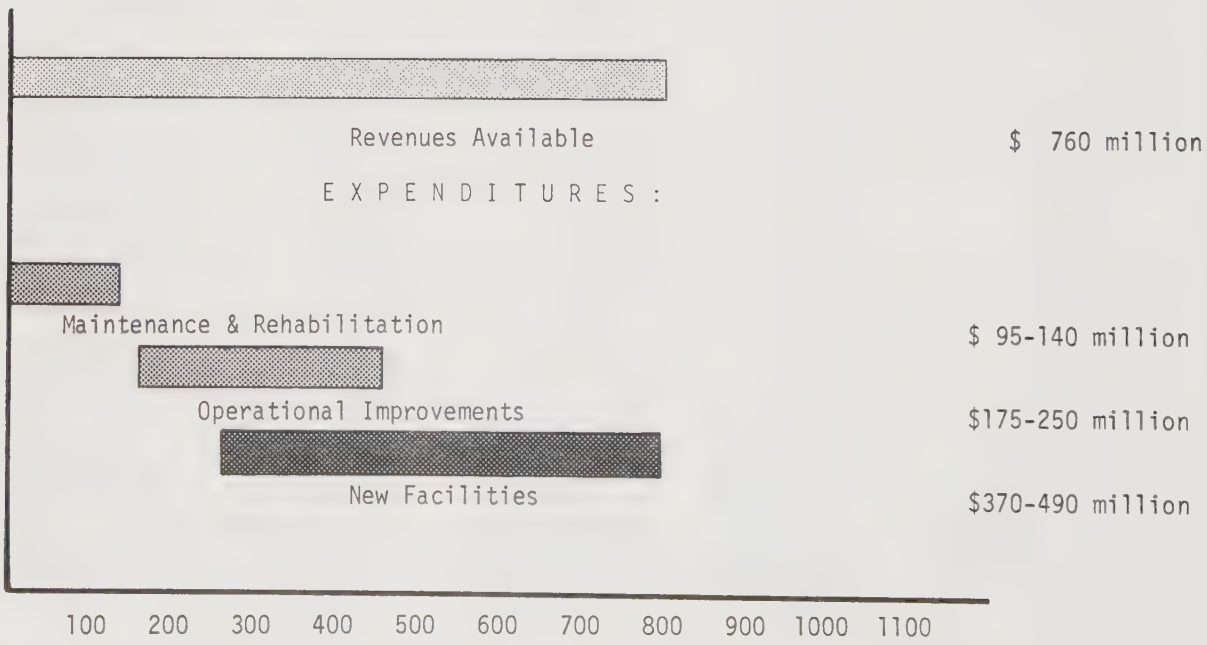


figure 6.4-7

would require the equivalent of a 1.4-cent/gallon gasoline tax increase during FY '79-'88.* Expected additions to the project list and the highway requirements of the Regional Transit Development Program could add significantly to this amount.

Once remaining project submittals have been received, a constrained financial plan (required by AB 402) will be prepared. In preparing this plan, a decision will have to be made as to whether to constrain the plan based on available revenue estimates, or to seek additional sources of funds.

* Assumes that gasoline consumption in the SCAG region equals 50% of California gasoline consumption and that all gas tax revenues generated by the increase in the SCAG region are returned to the region.

airports

6.5

6.5
AIRPORT SYSTEM

The basic goal of this airport system plan is to develop a system of airports which meets the air transportation needs of the region in a manner consistent with the adopted Growth Forecast Policy. In formulating the regional plan, basic data on the existing airport system were coordinated with material provided by the Federal Aviation Administration and the Division of Aeronautics of the California Department of Transportation. The air transportation forecasts used in this plan are consistent, on a regional level, with forecasts developed by the State Division of Aeronautics.

6.5.1
Setting

The locations of the major air carrier airports are shown in Figure 6.5-1. A comparison of the traffic at the air carrier airports in CY 1977 is shown in Table 6.5-1.

The inventory of air carrier and general aviation airports comprising the SCAG region Airport System Plan are listed alphabetically by county in Table 6.5-2. The airports listed in Table 6.5-2 meet the criteria for being included in the plan contained in the airport system policies presented in the Policy Section of the RTP.

6.5.2
Current Issues

Some of the most important unresolved problems and issues for the region's airports are described below.

Capacity Deficiencies

Forecasts indicate a demand of 88 to 97 Million Air Passengers (MAP) in 1995. (Table A-3-1, Appendix A.) However, current data show that the regional airport system (with presently planned expansions of existing facilities) will accommodate only 67 to 78 MAP by 1995 (Table A-3-2). Thus, it is possible that one out of three persons wishing to fly on air carriers in 1995 will not be able to.

General aviation forecasts indicate a growth from some 11,000 based aircraft in 1977, to 20,000 in 1995. Forecasts indicate a shortage of airport accommodations for general aviation aircraft by 1990: 850 accommodations in Los Angeles County, 690 in Orange County (Table A.3-3).

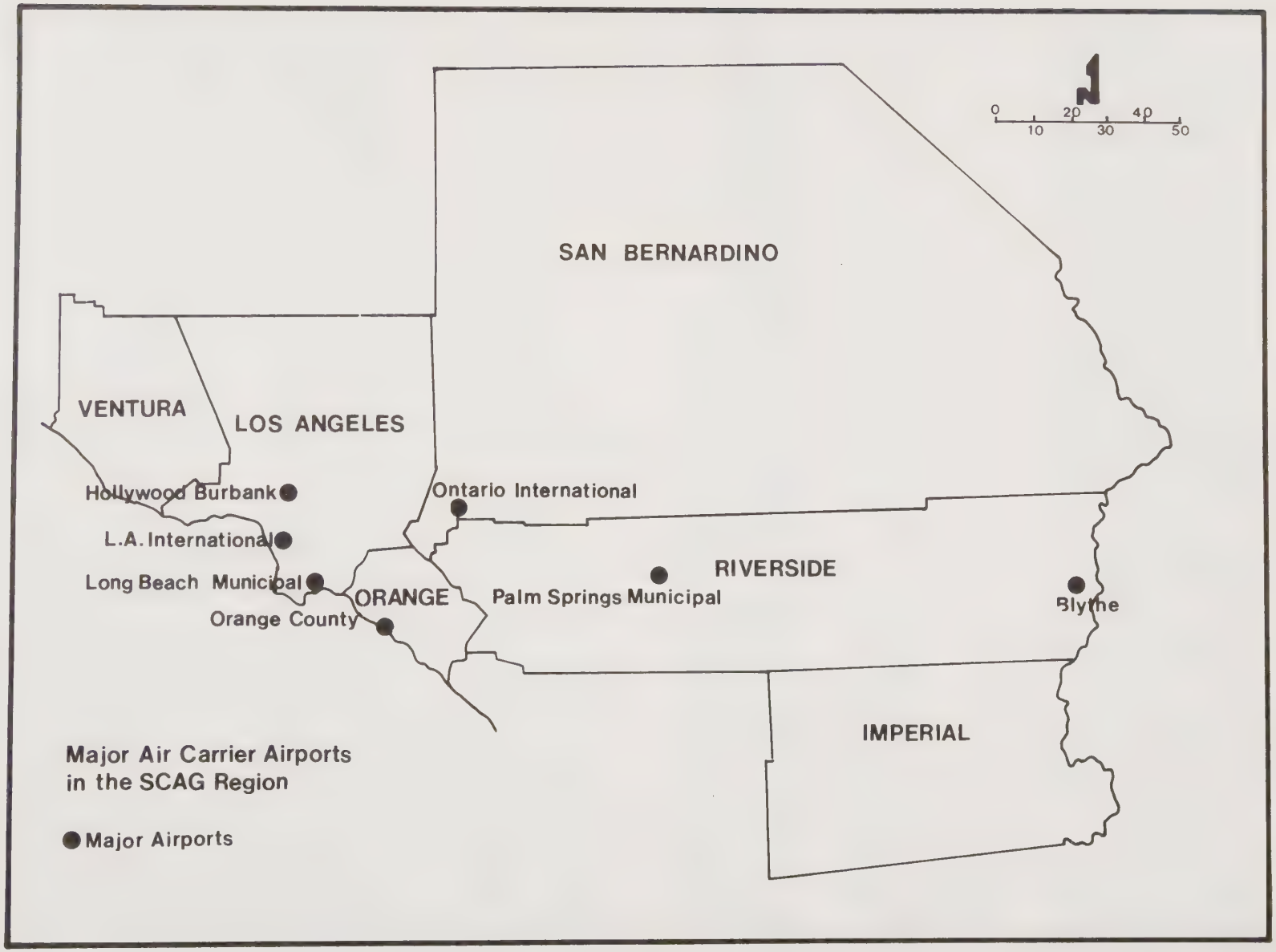

N
0
10
20
30
40
50
SAN BERNARDINO
VENTURA
LOS ANGELES
Hollywood Burbank
L.A. International
Long Beach Municipal
Orange County
ORANGE
Ontario International
RIVERSIDE
Palm Springs Municipal
Blythe
IMPERIAL
Major Air Carrier Airports
in the SCAG Region
Major Airports

figure 6.5-1

AIR CARRIER AIRPORTS

CY 1977 TRAFFIC COMPARISON

AIRPORT	PASSENGERS (NUMBER)	AIR CARGO (TONS)
LOS ANGELES INTERNATIONAL	28,361,863	812,290
ORANGE COUNTY	2,158,505	2,455
HOLLYWOOD-BURBANK	1,998,952	8,541
ONTARIO INTERNATIONAL	1,680,556	3,418
PALM SPRINGS	506,283	323
LONG BEACH	491,243	2,294
IMPERIAL COUNTY	48,683	203
PALMDALE AF PLANT 42	6,147	24
BLYTHE	3,726	21
SCAG REGION TOTAL	35,255,958	829,569

table 6.5-1

AIRPORTS IN THE SCAG REGION

	County / Airport Type / Airport Name	Owner/ Operator: Public	Owner/ Operator: Private	Type of Civil Use: Air Carrier	Type of Civil Use: Third Level	Type of Civil Use: Gen'l Aviation	Airspace Capability	Classification: Regional Significance	Classification: Special Significance	Classification Criterion
	IMPERIAL COUNTY									
	Civil Airports									
	Brawley Muni.	●				●	VFR	●		Projected activity
	Calexico Int'l.	●				●	F-IFR	●		Projected activity
	Calipatria Muni.	●				●	VFR		●	Current activity
	Holtville	●				●	VFR		●	Current activity
	Imperial County	●		●	●	●	S-2	●		CAB and PUC service
	Salton Sea		●			●	F-IFR	●		Remote
	Military Airports									
	NPTR El Centro	●					S-2			
	Demand Areas									
	None									
	LOS ANGELES COUNTY									
	Civil Airports									
(1)	Agua Dulce		●			●	VFR	●		Current activity
(2)	Avalon Bay SPB/ Pebbly Beach SPB	●			●		F-IFR*	●		PUC Center
	Brackett	●				●	F-IFR	●		Current activity
	Catalina		●		●	●	L-IFR	●		PUC
	Catalina Term'l SPB	●			●		LD*	●		PUC
	Compton	●				●	VFR	●		Current activity
	Crystal		●			●	VFR		●	Recreational use
	El Monte	●				●	F-IFR	●		Current activity
	Fox, Gen'l Wm. J.	●				●	F-IFR	●		Current activity
	Hawthorne	●				●	L-IFR	●		Current activity
(3)	Hollywood-Burbank		●	●	●	●	S-3	●		CAB/PUC/current activity
	Hughes		●			●	L-D		●	Airspace conflict
	Long Beach	●		●	●	●	S-3	●		PUC/current activity
	Los Angeles Int'l	●		●	●	●	F-TCA	●		CAB/PUC/current activity
	San Fernando		●			●	LD(a)	●		Current activity
	Santa Monica	●				●	L-IFR	●		Current activity
	Torrance Muni.	●				●	L-IFR	●		Current activity
	Two Harbors SPB		●		●		VFR	●		PUC
	Van Nuys	●				●	F-IFR	●		Current activity
	Whiteman	●				●	LD(a)	●		Current activity
	Military Airports									
(4)	AF Plant 42 (Palmdale)	●			●		(i)	●		PUC
	ALF San Clemente	●					F-IFR*		●	
	Demand Areas									
	Palmdale Int'l	●		●	●		L-TCA	●		Projected activity
(5)	Azusa/Industry	●				●		●		Projected activity
(5)	Montebello	●				●		●		Projected activity
(6)	Saugus/Castaic/Fillmore	●				●		●		Projected activity
	Avalon STOL	●			●			●		Projected PUC service
	Reeves Field	●				●		●		Projected activity

table 6.5-2

AIRPORTS IN THE SCAG REGION

County / Airport Type / Airport Name	Owner/ Operator: Public	Owner/ Operator: Private	Type of Civil Use: Air Carrier	Type of Civil Use: Third Level	Type of Civil Use: Gen'l Aviation	Airspace Capability	Classification: Regional Significance	Classification: Special Significance	Classification Criterion
ORANGE COUNTY									
Civil Airports									
Capistrano		•			•	VFR	•		Current activity
Fullerton	•			•	•	L-IFR	•		PUC/current activity
Meadowlark		•			•	LD	•		Current activity
Orange County	•		•	•	•	S-3	•		CAB/PUC current activity
Military Airports									
MCAS El Toro	•					S-3		•	
AFRC Los Alamitos	•					L-IFR		•	
MCAS Santa Ana	•					LD*		•	
Demand Areas									
County-Wide	•		•				•		Projected activity
(7) Los Alamitos/Seal Beach	•				•		•		Projected activity
South County	•				•		•		Projected activity
RIVERSIDE COUNTY									
Civil Airports									
Banning Muni.	•				•	VFR*	•		Current activity
Blythe	•		•		•	F-IFR	•		CAB/remote
Corona Muni.	•				•	VFR	•		Current activity
Desert Center	•				•	VFR	•		Remote
Fla-Bob		•			•	LD	•		Current activity
Hemet-Ryan	•				•	L-IFR	•		Current activity
North Shore		•			•	VFR	•		Remote
Palm Springs Muni.	•		•	•	•	S-2	•		CAB/PUC/current activity
Riverside Muni.	•			•	•	F-IFR	•		PUC/current activity
Chiriaco Summit	•				•	VFR	•		Remote
Skylark		•			•	LD		•	Recreational use
Thermal	•				•	F-IFR	•		Projected activity/remote
Military Airports									
March AFB	•					S-3		•	
Demand Areas									
(8) Edgemont/Sunnymead	•				•		•		Projected activity
(9) Elsinore/Temecula	•				•		•		Projected activity/remote

table 6.5-2

AIRPORTS IN THE SCAG REGION

	County / Airport Type / Airport Name	Owner/Operator: Public	Owner/Operator: Private	Type of Civil use: Air Carrier	Type of Civil use: Third Level	Type of Civil use: Gen'l Aviation	Airspace Capability	Classification: Regional Significance	Classification: Special Significance	Classification Criterion
	SAN BERNARDINO COUNTY									
	Civil Airports									
	Apple Valley	●				●	S-2	●		Current activity
	Baker	●				●	F-IFR	●		Remote
	Barstow-Daggett	●				●	F-IFR	●		Projected activity
	Big Bear City	●				●	VFR	●		Current activity
	Cable		●			●	L-IFR	●		Current activity
	Chino	●				●	F-IFR	●		Current activity
	El Mirage		●			●	VFR		●	Recreational use
	Giant Rock	●				●	VFR		●	Publicly owned/operated
	Hesperia Air Lodge		●			●	LD	●		Projected activity
	Morrow Field		●			●	LD		●	Airspace conflict
	Needles	●				●	F-IFR	●		Remote
	Ontario Int'l	●		●	●	●	L-TCA	●		CAB/PUC/current activity
	Redlands Muni.	●				●	LD	●		Current activity
	Rialto Muni.	●				●	VFR	●		Current activity
	Soggy Dry Lake	●				●	VFR*	●		Remote
	Tri-City		●			●	LD	●		Current activity
	Trona	●			●	●	VFR	●		PUC/remote
	Twenty-nine Palms	●				●	VFR	●		Remote
	Vidal Junction	●				●	VFR*		●	Publicly owned/operated
	Yucca Valley		●			●	LD	●		Remote
	Military Airports									
	Bicycle Lake AAF	●					F-IFR*		●	
	George AFB	●					S-2		●	
	Norton AFB	●					S-2		●	
	MCB Twenty-nine Palms	●					F-IFR*		●	
	Demand Area									
	East County	●				●			●	Recreational use
(10)	San Bernardino	●			●	●		●		
	VENTURA COUNTY									
	Civil Airports									
(11)	Ventura County-Camarillo	●				●	F-IFR(b)	●		Projected activity
	Santa Paula		●			●	VFR	●		Current activity
	Santa Susana		●			●	VFR	●		Current activity
	Ventura County-Oxnard	●			●	●	F.-IFR	●		PUC/current activity
	Military Airports									
	NAS Pt. Mugu						S-2		●	
	OLF San Nicolas						F-IFR*		●	
	Demand Areas									
(12)	Simi Valley/Moorpark	●				●		●		Projected activity
	Ojai	●				●		●		Projected activity
(13)	Fillmore/Castaic	●				●		●		Projected activity
	Oxnard Plains	●		●		●		●		Projected activity

table 6.5-2

NOTES FOR TABLE 6.5-2

1. Leased and operated by the City of Los Angeles as a reliever airport for Van Nuys.

2. The publicly-owned Avalon Bay Seaplane Base is used only as an airline alternate for the adjacent, privately-owned Pebbly Beach Seaplane Base and is not open to public use.

3. The cities of Burbank, Glendale, and Pasadena have formed the Hollywood-Burbank Airport Authority to purchase and operate the airport.

4. Plant 42 is a civil and military flight test center. A joint-use agreement with the Air Force provides for airline service.

5. These two demand areas could potentially be served by one larger airport.

6. The Saugus/Castaic area is not expected to generate a regionally significant demand by itself. An airport serving the combined Saugus/Castaic/Fillmore demand area would be regionally significant. Also see Ventura County.

7. Reeves Field is currently being studied by the State of California and the County of Los Angeles to serve the regionally significant demand generated by the Los Alamitos/ Seal Beach area as well as to relieve congestion at other general aviation airports in Orange and Los Angeles Counties.

8. An airport site at Moreno Valley is currently under consideration by the County of Riverside to serve the regionally significant demand projected for the Edgemont/Sunnymead area.

9. The County of Riverside currently is seeking a site for a regionally significant general aviation airport to serve the demand generated between Elsinore-Temecula Areas.

10. Although joint use of Norton AFB could serve these needs, the Air Force has adopted a no joint use position. SANBAG is presently conducting a Requirements and Site Selection Study to determine how these needs will be met.

11. Formerly Oxnard Air Force Base, the Airport is now operated by the County of Ventura as a general aviation airport.

12. The City of Simi Valley and Ventura County are preparing to undertake a joint study of alternative airport sites in the east end of the county.

13. An airport serving the regionally significant demand generated in the Fillmore area could also potentially serve the locally significant demand generated in the Castaic area of Los Angeles County.

F-IFR Full Instrument Flight Rules (airport can be developed to full IFR, including precision approach, and VFR capacity)
F-TCA Full Terminal Control Area
LD Limited Development (further development of airport is limited due to airspace conflicts with other airports)
L-IFR Limited Instrument Flight Rules (airport has only limited, i.e. non-precision, IFR capability, but can be developed to full capacity for VFR operations)
L-TCA Limited Terminal Control Area (arrival/departure corridor configuration)
S-2 Stage II Radar Approach Sequencing
S-3 Stage III Radar Approach Sequencing
VFR Visual Flight Rules (airport can be developed to full VFR capacity, but cannot accommodate any IFR operations)

* No airspace capability category assigned by Task 11; category shown obtained through consultation with Federal Aviation Administration.
(a) San Fernando and Whiteman have airspace conflicts which limit simultaneous development. Both currently serve regionally significant levels of demand.
(b) Full IFR development may be limited due to airspace conflicts with Ventura County, Oxnard Airport and Naval Air Station, Point Mugu.

table 6.5-2

Hollywood-Burbank Airport Ownership

SCAG's regional policy encourages public acquisition of the Hollywood-Burbank Airport if it is to continue in use as a major airport. The airport has been offered for sale by its present owner, Lockheed Corporation, to Hollywood-Burbank, Glendale, and Pasadena. Airport tenants have been notified of the intent to close the airport to public usage on April 30, 1978,if the sale fails to progress.

Palmdale International Airport (Proposed)

Palmdale International Airport is the Los Angeles City Department of Airport's long-range project to meet future air carrier passenger demand. The City of Los Angeles has a development plan for this airport and has been acquiring property in recent years. The site appears to be acceptable to a majority of the local communities. At this time, there is no coordinated plan to provide the necessary public transportation to and from the Los Angeles urbanized areas.

Airport Growth Constraints

A number of the SCAG region airports have local constraints on the increase of airport operations needed for the forecasted growth in air travel and cargo. Many constraints are due to the noise impact on the surrounding community, surface access congestion and lack of physical space to accommodate facility expansion without significant economic burden on the airport operator.

Reeves Field Airport

Reeves Field, an airport on Terminal Island in the City of Los Angeles Harbor, is now closed. A general aviation airport is needed to relieve flight operations and provide added space at Torrance Municipal, Hawthorne Municipal, Long Beach Municipal, and other south bay area airports. The Los Angeles Harbor District has plans for using Reeves Field as a central storage area for hazardous materials.

Airport Noise Standards

Los Angeles International, Hollywood-Burbank, and other major air carrier airports in California remain operating only through the issuance by the State of annual variances from the State regulation Title 4 Subchapter 6 Noise Standards. The State noise standard is sufficiently stringent that the ambient noise from a neighboring street reportedly exceeds the noise conditions that Los Angeles International Airport is required to meet.

6.5.3
Institutional Responsibilities

Institutions at federal, state, and local government levels as well as the private sector are involved in the regional airport system. The actions outlined above would be carried out primarily by local governments. Most airports are owned or leased and operated by cities and counties which would be responsible for capital improvements and planning of their respective airports.

The cities of Burbank, Glendale, and Pasadena have formed the Hollywood-Burbank Airport Authority (a joint powers entity) to purchase and operate the Hollywood-Burbank Airport. The State Government Code was amended specifically to provide for the purchase and for the issuance of revenue bonds by the Authority.

The Cities of Chino, Garden Grove, Santa Ana, and Stanton have formed a Joint Powers Authority, the Inter-County Airport Authority, for the purpose of developing a solution to the forecast public demand area defined in the State- and SCAG-adopted forecasts as primarily Orange County but including parts of Southern San Bernardino and Western Riverside Counties.

6.5.4
System Management Actions

1. In the short term, priority should be given to promoting greater use of special airport limousines or buses by increasing the frequency and points of service, and decreasing trip times. Provisions for priority lanes on freeways and on streets leading into the airport for these vehicles as well as other public transit buses are needed and should be vigorously supported.

2. Provisions should be made for handling the increased volumes of air cargo expected at LAX through 1985.

3. Ground access to Los Angeles International Airport must be improved, and any improvements should be planned to also accommodate the expected increases in air cargo volumes.

4. Ontario International should be planned as the major reliever airport for Los Angeles International in terms of air cargo handling capability.

5. Remote passenger terminals located in the high-density centers of the Los Angeles metropolitan area and providing fast, convenient ground-access service directly to aircraft at Los Angeles International Airport should be in operation by the early 1980's.

6. Present remote parking capabilities and the intra-airport circulation system should be more fully developed.

7. By 1985, flight frequencies and the choice of destination at Ontario International Airport should be greatly extended over those available today.

8. To assure that Hollywood-Burbank Airport will continue to fulfill its role in the regional airport system, support the transfer of ownership to the Hollywood-Burbank Airport Authority -- a joint powers entity formed by the Cities of Burbank, Glendale, and Pasadena. NE

9. The impact on the Airport System should be determined in making decisions on the use of unused airport facilities in the region, such as Reeves Field on Terminal Island.

10. SCAG will render all appropriate assistance to those local governments in forecasting, for the purpose of assisting them to legally translate public need into physical facilities. NE

11. SCAG will assemble the data sufficient to permit the definition of general aviation demand areas, as has been done for air carrier demand areas. This will indicate facility development priorities. NE

6.5.5
System Development Actions

12. Land around Los Angeles International Airport should be purchased or in some other manner brought into conformance with the criteria of the California (or superseding federal) noise regulations.

13. Land around Ontario International Airport should be purchased or in some other manner brought into conformance with the criteria of the California (or superseding federal) noise regulations.

14. Los Angeles International Airport should be developed to enable 40 million annual passengers to be enplaned and deplaned by the mid-1980's.

15. Ontario International should be developed to enable 4 to 6 million annual passengers to be enplaned and deplaned by 1985; to enable substantial growth in passenger volumes through the 1980's; and to enable 14 to 20 million annual passengers to be enplaned and deplaned by 1995.

16. Airline airport facilities in the Palmdale area should be developed to serve all of the air passenger demand attracted to an airport in that area.

o Any plans for development of new major airline airport facilities at Palmdale should take into consideration the limitations which this airport site may have due to the adverse effect of its high altitude and high temperatures on aircraft takeoff performance. DRC

6.5.6
Financing

The regional airport system short-range capital improvements with cost estimates for the five-year period FY 80 through FY 84 (as planned by the region's airport operators) are provided in Table 6.5-3.

The region's air-carrier-airport operators have projects eligible for Federal Aviation Administration Airport Development Aid Program (ADAP) funding far in excess of the ADAP funding that is likely to be granted within the SCAG region in this period. The Los Angeles City Department of Airports' five-year plan shows a theoretical use of approximately $74.3 million in ADAP funds for Los Angeles International Airport, and approximately $18.9 million for Ontario International Airport. The figure for LAX is about double the approximate $7 million per year the Department has been obtaining in ADAP funds for that airport. However, the necessary extension of the Federal legislation might enable higher funding.

The region's general aviation airport operators have projects eligible for FAA ADAP funding which require about 12% more ADAP funds than estimated to be available.

The five-year capital improvement programs proposed by the airport operators for FY 85 - FY 89 are listed in Table 6.5-4. Very few of the airports have information for this period. The data for Los Angeles International and Palmdale International are for projects planned only through FY 85. Airport development is heavily dependent upon ADAP funding and Congress has only appropriated ADAP funds through FY 80.

The Airport and Airway Development Act Amendments of 1976 to the Airport and Airway Development Act of 1970 increased the amounts of Federal ADAP capital improvement funds previously available per year and added new airport improvement elements to the eligibility list. Since Congress provided for funding only through FY 80, it is assumed for planning beyond FY 80 that the present Federal funding pattern for the airport system will continue through FY 89.

Two-thirds of the Federal funding for air-carrier and commuter airports is assigned to air-carrier airports on the basis of annual passenger enplanements. The remaining one-third will be assigned to air-carrier and commuter airports at the discretion of the Secretary of the Department of Transportation. Since for this latter case there is no historical basis for the amount that will be assigned to the SCAG-region airport system, it is assumed that the proportion will remain about the same as when one-third was assigned on the basis of population and geographical area.

The Federal ADAP capital improvement funding available to the SCAG-region airport system shown in Table 6.5-5 reflects these assumptions.

The California Airport Aid Program (CAAP) derives its funds primarily from the tax on aviation fuel used by general aviation aircraft. Because of this, the Division of Aeronautics distributes the funds primarily to airports which provide service to the general aviation sector although there is a mandatory allocation of $5,000 annually to each public airport.

table 6.5-3

FIVE-YEAR CAPITAL IMPROVEMENT PROGRAMS PROPOSED BY SCAG REGION AIRPORT OPERATORS

BY MAJOR COST CATEGORY FOR FY 1980 THROUGH BY 1984 (THOUSANDS of DOLLARS)

COUNTY AND AIRPORT	PROJECT COST CATEGORY						FUNDING SOURCE		
	AIRFIELD AREA	PASSENGER TERMINAL AREA	OTHER BUILDING AREA	GROUND ACCESS FACILITIES	LAND ACQUISITION	TOTAL PROJECT COST	ADAP	CAAP	LOCAL
IMPERIAL COUNTY									
Brawley	0	0	330,000	0	0	330,000	0	70,000	260,000
Calexico									
Calipatria Municipal	330,000	152,000	36,100	77,400	0	596,000	0	536,400	59,600
**Imperial County	2,412,000	0	550,000	0	1,744,000	4,706,000	4,235,400	0	470,600
Salton Sea	680,000	0	120,000	0	100,000	900,000	0	0	900,000
County Total	3,422,000	152,000	1,036,000	77,400	1,844,000	6,532,000	4,235,400	606,400	1,690,200
LOS ANGELES COUNTY									
Brackett	1,933,987		650,200	0	0	2,584,187	1,660,247	57,600	866,340
Compton	0		138,000	0	0	138,000	0	0	138,000
El Monte	0	0	1,067,500	0	0	1,067,500	0	0	1,067,500
Fox, Gen. Wm. J.	64,000	0	0	0	0	64,000	0	57,600	6,400
Hawthorne Municipal	0	50,000	0	0	2,987,000	3,037,000	2,573,000	227,000	237,000
**Hollywood-Burbank	4,950,000	162,000	0	100,000	51,000,000	56,212,000	39,569,795	0	16,642,205
**Long Beach (a)	10,190,000	6,300,000	1,500,000	820,000	1,000,000	19,810,000	14,060,000	0	5,750,000
**Los Angeles Int'l.	49,421,000	158,150,000	16,599,000	169,474,000	49,697,000	443,341,000	74,338,500	25,000	368,977,500
**Palmdale Int'l.	0	63,330,000	0	0	500,000	63,830,000	0	0	63,830,000
Santa Monica Municipal	67,000	0	0	18,000	0	85,000	68,000	8,000	9,000
Torrance Municipal	1,007,500	1,000,000	283,600	696,000	0	2,987,100	1,026,540	304,650	1,655,910
Van Nuys	3,777,000	0	1,738,000	744,000	0	6,259,000	0	25,000	6,234,000
Whiteman	0	1,122,000	0	0	0	1,122,000	0	0	1,122,000
County Total	71,410,487	230,114,000	21,976,300	171,852,000	105,184,000	500,536,787	133,296,082	704,850	466,535,855
ORANGE COUNTY									
Fullerton	389,000	40,000	788,500	0	0	1,217,500	432,000	627,480	158,020
**Orange County									
County Total	389,000	40,000	788,500	0	0	1,217,500	432,000	627,480	158,020
RIVERSIDE COUNTY									
Banning Municipal	402,000	0	0	0	0	402,000	173,700	181,300	47,000
**Blythe	500,000	0	95,000	0	0	595,000	400,000	0	195,000
Corona Municipal	770,000	200,000	1,340,000	220,000	80,000	2,610,000	765,000	414,000	1,431,000(b)
Desert Center	355,000	0	0	0	0	355,000	268,000	18,000	69,000
Hemet-Ryan	1,050,000	120,000	180,000	82,000	0	1,432,000	840,000	0	592,000
**Palm Springs Municipal	450,000	516,000	10,000	0	4,100,000	5,076,000	4,549,500	0	526,500
Riverside Municipal	905,000	0	0	629,000	258,000	1,792,000	1,585,800	24,600	181,600
Thermal	215,000	0	60,000	0	0	275,000	52,000	135,000	88,000
Chiriaco Summit	20,000	0	0	0	0	20,000	0	0	20,000
Moreno Valley	1,035,000	0	90,000	0	525,000	1,650,000	1,248,000	0	402,000
Temecula Area	1,035,000	0	90,000	0	600,000	1,725,000	1,308,000	0	417,000
County Total	6,737,000	836,000	1,865,000	931,000	5,563,000	15,932,000	11,190,000	772,900	3,969,100

table 6.5-3

FIVE-YEAR CAPITAL IMPROVEMENT PROGRAMS PROPOSED BY SCAG REGION AIRPORT OPERATORS

BY MAJOR COST CATEGORY FOR FY 1980 THROUGH FY 1984 (THOUSANDS of DOLLARS)

COUNTY AND AIRPORT	PROJECT COST CATEGORY						FUNDING SOURCE		
	AIRFIELD AREA	PASSENGER TERMINAL AREA	OTHER BUILDING AREA	GROUND ACCESS FACILITIES	LAND ACQUISITION	TOTAL PROJECT COST	ADAP	CAAP	LOCAL
SAN BERNARDINO COUNTY									
Apple Valley	376,680	0	0	0	577,733	954,413	858,973	0	95,440
Baker	30,000	0	0	0	0	30,000	0	27,000	3,000
Barstow-Daggett	446,115	0	0	0	0	446,115	0	401,504	44,611
Big Bear City	1,303,527	0	0	0	0	1,303,527	1,173,174	0	130,353
Chino	963,500	0	0	0	0	963,500	867,150	0	96,350
Needles Municipal	245,600	0	0	0	0	245,600	221,040	0	24,560
**Ontario Int'l	7,771,000	26,194,000	0	0	0	33,965,000	18,925,250	25,000	15,014,750
Redlands Municipal	52,000	0	0	60,000	0	112,000	0	46,800	65,200
Rialto Municipal	1,800,000	130,000	330,000	0	300,000	2,560,000	1,890,000	0	670,000
Twenty-Nine Palms	89,881	0	0	0	0	89,881	0	80,892	8,989
Trona	15,000	0	0	0	0	15,000	0	13,500	1,500
County Total	13,093,303	26,324,000	330,000	60,000	877,733	40,685,036	23,935,587	594,696	16,154,753
VENTURA COUNTY									
**Ventura Co. Oxnard	559,000	95,000	338,000	0	2,225,000	3,217,000	2,331,000	475,750	410,250
Ventura Co. Camarillo	1,058,000	915,000	300,000	0	0	2,273,000	1,227,400	454,300	591,300
County Total	1,617,000	1,010,000	638,000	0	2,225,000	5,490,000	3,558,400	930,050	1,001,550
SCAG REGION									
Air Carrier Airports	76,253,000	254,747,000	19,092,000	170,394,000	110,266,000	630,752,000	158,409,445	525,750	471,816,805
G. A. Airports	20,415,790	3,729,500	7,541,900	2,526,400	5,427,733	39,641,323	18,238,024	3,710,626	17,692,673
Total	96,668,790	258,476,500	26,634,900	19,920,400	115,693,733	670,393,323	176,647,469	4,236,376	65,509,478

** AIR CARRIER AIRPORTS

(a) PROJECTED IMPROVEMENT PROJECTS REPRESENT UNAPPROVED PLANNING FORECASTS ONLY

(b) PARTLY IS FROM PRIVATE FUND

table 6.5-4

FIVE-YEAR CAPITAL IMPROVEMENT PROGRAMS PROPOSED BY SCAG REGION AIRPORT OPERATORS BY MAJOR COST CATEGORY FOR FY 1985-86 THROUGH FY 1989-90
(Thousands of Dollars)

AIRPORTS	PROJECT COST CATEGORY						FUNDING SOURCE		
	Airfield Area	Passenger Terminal Area	Other Building Area	Ground Access Facilities	Land Acquisition	Total Project Cost	ADAP	CAAP	Local
Banning Municipal	200	0	100	100	0	400	360	20	20
**Blythe	0	0	95	0	0	0	0	0	95
Corona Municipal	600	330	1,640	220	0	2,790	1,206	0	1584*
Desert Center	NO IMPROVEMENTS						0	0	0
Hawthorne Municipal	0	0	0	0	1,698	1,698	1,373	142	183
Hemet-Ryan	0	110	340	0	0	450	0	0	450
**Imperial County						5,000	4,500	0	500
Redlands Municipal	2,500	0	0	0	0	2,500	2,039.75	210.25	250
Reno Valley (proposed)	150	0	90	0	0	240	80	0	160
Rialto Municipal	2,300	0	0	0	0	2,300	2,070	0	230
Santa Monica Municipal	1,000	1,000	0	0	0	2,000	900	110	990
Temecula Area (proposed)	0	0	90	0	0	90	0	0	90
Torrance Municipal	354	548.6	0	0	0	902.6	623.88	96.12	182.6
Ventura Co - Camarillo	250	0	0	0	0	250	225	12.5	12.5
**Ventura Co - Oxnard	250	0	0	0	0	250	225	12.5	12.5

*part of the funds is from private investment
**Air Carrier Airports

Preliminary planning within the State Division of Aeronautics indicates that approximately $3.0 million will be available for distribution to the California airports annually for capital improvements in FY 79. The available funds will drop to $1.0 million in FY 83. The SCAG region, from consideration of numbers of airports and airport activity, is entitled to approximately one-half of the California Funding. The State CAAP capital improvement funding available to the SCAG region airport system shown in Table 6.5-5 is based on obtaining one-half of these funds.

It should be noted that the $101,776,000 in ADAP funds estimated to be available in FY 80-84 for air carrier airports will not cover the planned need of $158,409,445 (shown in Table 6.5-3). Nor will the $16,249,000 in ADAP funds estimated to be available for the same period cover the $18,238,024 shown as required for general aviation airports.

The $3,900,000 in CAAP funds estimated to be available in FY 80-84 will not cover the planned need of $4,236,376 for the regional airport system.

SCAG REGION AIRPORT SYSTEM
CAPITAL IMPROVEMENT FUNDING AID FORECAST
(THOUSANDS OF DOLLARS)

	FY 1980	FY 1981	FY 1982	FY 1983	FY 1984	TOTAL FY 1980-1984	TOTAL FY 1985-1989
Federal (ADAP)							
Aircarrier/Commuter	18,274	19,315	20,355	21,396	22,436	101,776	127,788
General Aviation	2,937	3,094	3,250	3,406	3,562	16,249	20,154
State (CAAP)	1,200	1,000	700	500	500	3,900	2,500

table 6.5-5

nonmotorized

6.6

6.6
NON-MOTORIZED

6.6.1
Setting

Non-motorized transportation includes all modes of travel that use human energy directly for propulsion. Bicycling and walking are the most common examples.

In the SCAG region each county has developed and adopted county wide plans for bikeways and related bicycle facilities. In conjunction with the counties, nearly 80% of the cities in the region have developed local plans for the same type of facilities interconnected and coordinated with the county facilities. For the most part, the plans include extensive networks of bike paths and describe projects being implemented progressively, using available funding to extend the basic system. Maps and material showing routes, convenience data and other physical information are available from the individual counties and cities. In addition, CALTRANS has developed an extensive network of state bikeway routes on state highways throughout the state highway system with specific regional maps and convenience data available from CALTRANS District Offices. They also provide standards and guidelines for facility design, operational use, safety and traffic practices. These city, county and state plans have been serving the cyclist adequately and, to date, a regional plan for bicycles, or non-motorized transportation, has not been developed by SCAG.

Plans for pedestrian facilities have not been developed in general practice as separately identifiable programs. These facilities are usually implemented and funded as part of local plans for traffic and street/highway development at city and county levels. As such, they are consistent within themselves and no regional plans have been developed or considered necessary. Regional level coordination of pedestrian facilities has been primarily for the administration of SB-821 funds which includes regional policies for pedestrian and physically handicapped and elderly needs in project application and A-95 review.

6.6.2
Relation to Issues and Objectives

The use of non-motorized means of travel is most closely related to the air quality and energy conservation issues and objectives for the region. Neither walking nor bicycle riding burns fuel or emits pollutants which deteriorate air quality. The bicycle can be used effectively as an alternate means of transportation for many short trips made by the automobile. Every trip that can be made by this means instead of the automobile directly reduces vehicle miles of travel and emissions to the atmosphere. Currently, bicycle use is predominantly for recreational purposes although its use for work trips, shopping trips, and other errands is growing. Data on these uses is not readily available. Although the reduction in automobile use expected from bicycle travel is small, it does make a positive contribution. The use of the bicycle should be encouraged as much as possible by regional policies and actions.

6.6.3
Actions

County and city plans for bicycle and pedestrian facilities are consistent within the region and they adhere to Federal and State safety and design standards. Implementation and schedules of action are determined by local agencies. Coordination of these plans is provided by SCAG, as needed. The administration of SB 821 funds and the review process for A-95 and the Transportation Improvement Program (TIP) are continuing functions. Actions to encourage more bicycle use will be continued.

1. Coordinate bicycle planning, implementation, and safety programs among all participants in the transportation planning process.

5.6.4
Financing

SB 821 authorizes 2% of the Local Transportation Fund (SB 325) money in each county to be used for bicycle or pedestrian facilities. Table 6.6-1 summarizes the moneys programmed from this fund -- by county and by SCAG region -- for the past three years.

The State has also created other funds for bikeway development. They are:

- SB 36 -- Initiated in FY 75, these monies are derived from the State's gasoline tax. Approximately $360,000 is appropriated annually for bikeway development and its allocation is governed by SB 244.

- SB 244 -- Passed in 1976, created a Bikeway Account for bikeway planning and development; however, funding allocations were not included in the final bill and no appropriation has been made to date.

- SB 283 -- A statewide program of transportation improvements including bikeways was established. $4,940,000 has been allocated for a three-year program ending in FY 78. Half of the funds was allocated to improvement of the Bikecentennial Route. The other half was allocated to two bicycle commuter demonstration projects, one in northern California, and one in southern California. The San Diego program was funded in the south.

SB 821 BICYCLE AND PEDESTRIAN FACILITIES FUND ALLOCATIONS

COUNTY	PROJECT TYPE	FY 1976	FY 1977	FY 1978
Imperial	Bicycle	15,264	21,308	13,753
	Pedestrian	---	---	6,900
	Total	15,264	21,308	20,653
Los Angeles	Bicycle	1,196,172	1,179,506	1,260,611*
	Pedestrian	213,943	198,326	247,263
	Total	1,410,115	1,377,832	1,507,874
Orange	Bicycle	292,324	383,216	370,707
	Pedestrian	7,273	42,468	49,146
	Total	299,597	425,684	419,853
Riverside	Bicycle	82,114	92,111	110,978
	Pedestrian	---	---	---
	Total	82,114	92,111	110,978
San Bernardino	Bicycle	65,714	62,382	44,802
	Pedestrian	38,059	45,375	80,969
	Total	103,773	107,757	125,771**
Ventura	Bicycle	60,870	77,331	55,225
	Pedestrian	1,600	---	22,000
	Total	62,470	77,331	77,225
TOTAL SCAG REGION	Bicycle	1,712,458 (87%)	1,815,854 (86%)	1,856,076 (82%)
	Pedestrian	260,875 (13%)	286,169 (14%)	406,278 (18%)
	Total	1,973,333 (100%)	2,102,023 (100%)	2,262,354 (100%)

*Unallocated funds included in Bikeway expenditures in County of L.A.

**$6,965 unallocated in San Bernardino County.

table 6.6-1

maritime, railroads

6.7

6.7
MARITIME AND RAILROADS

Maritime transport in the region is almost wholly concerned with worldwide freight movement. Since the majority of world trade is conducted by ship, the ports play a vital role for commercial, industrial and residential interests. The Los Angeles Customs District comprises the ports of Long Beach, Los Angeles and Port Hueneme. The District handled $14.5 billion worth of trade in 1974 -- 39% of the total trade at all West Coast ports.

The operation of the region's ports concerns an area much greater than the SCAG region. The Los Angeles Customs District serves a market area encompassing the southern portion of California as well as all or part of seven other Western states, and products imported here are shipped throughout the country. Thus the region's ports are of national significance.

The SCAG Region is served by three major railroad companies: The Southern Pacific, the Union Pacific and the Atchison, Topeka and Santa Fe. It is by far the busiest rail market in the Western United States. 21% of all goods produced in the SCAG Region for shipment to U.S. markets are transported by rail.

A study of passenger rail feasibility was conducted recently for the San Diego-Los Angeles Corridor Study. The Study found that, with only minor improvements, existing rights-of-way could provide reliable, frequent and environmentally acceptable inter-regional passenger transport in that corridor. In February 1978, additional commuter rail service was instituted in the Los Angeles-San Diego Corridor, jointly funded by Los Angeles County, Caltrans, and AMTRAK.

Actions

1. SCAG should take a more active role in regard to review of individual projects at the Ports through 1) increased direct contact and communication with Harbor Commissioners and local Harbor Districts and 2) a strengthened EIR review process.

2. Continue to implement recommendations from the San Diego-Los Angeles Corridor Study as outlined. These recommended actions are:

   Short-Range

   - Increase service by adding one round trip daily (for a total of five round trips daily). DROPPED

   - Add one new five-car train set (possibly the newly refurbished Los Angeles County train). DROPPED

   - Inaugurate weekend express service between Los Angeles and San Diego.

Figure 6.7-1

VENTURA
LOS ANGELES
SAN BERNARDINO
ORANGE
RIVERSIDE
IMPERIAL
MAJOR RAIL LINES,
HARBORS & MARINAS
IN THE SCAG REGION
FREIGHT LINES
FREIGHT & PASSENGER LINES (AMTRAK)
HARBORS
MARINAS
April, 1977

- Decrease trip time between Los Angeles and San Diego to two hours, twenty minutes (two hours, five minutes for express runs). This can be accomplished with the following improvements:

  Install fencing along 12.2 miles of track in the areas of Fullerton, Orange, Santa Ana, and San Clemente.

  Upgrade 3.3 miles of track, ties, and ballast.

  Install automomatic gates at three grade crossings to increase safety in Santa Fe Springs, Fullerton, and San Clemente.

  Adjust 15 double-track and 23 single-track circuits to automatic gates at grade crossings.

- Refurbish and upgrade the existing station at Fullerton, in conjunction with the multi-modal station development at that site. DROPPED

- Improve marketing of intercity rail services (new equipment, expanded schedules, weekend express service, station improvements, reduced travel times, special fares). DROPPED

- Improve local transit connections at each rail station, and provide route and schedule information at stations. DROPPED

- Legislatively authorize demonstration programs for inter-city rail improvements.

Medium Range

- Increase service by adding an additional daily round trip, for a total of six round trips daily. DROPPED

- Inaugurate daily express service between Los Angeles and San Diego.

- Increase super-elevations on three curves in the Santa Fe Springs area, and two curves in the San Juan Capistrano area to ease curves and increase speed limits.

- Decrease trip time to two hours, fifteen minutes (two hours for express runs).

- Refurbish and upgrade the existing station at Fullerton, in conjunction with the multi-modal station development at that site.

- Construct new stations at San Clemente and Anaheim Stadium, subject to local site selection and detailed project planning.

- Expand AMTRAK marketing activities. DROPPED

3. SCAG should support other attempts to utilize existing rail facilities for passenger (commuter) operations.

finance

7.0

7.0
FINANCIAL PLAN

Figure 7-1 and Table 7-1 present the breakdown of the existing sources of funds for surface transportation in the SCAG Region as they will potentially be available to pay for programs.

Figure 7-2 presents the way those projected funds will be expended on Highways, Transit, and Streets and Roads under a financially constrained plan. Table 7-2 and Figure 7-3 display two other alternative program levels of expenditures for the three modes. In addition to the financially constrained level, there is shown a maintenance of current services level and an expansion program which is financially unconstrained.

7.1
TRANSIT

For transit, the implications of a financially constrained plan vary from county to county. In counties other than Los Angeles, moderate system expansion is possible even in the constrained case. However, in Los Angeles, if no added funds are found to support SCRTD's operations, further service cutbacks and fare increases will be necessary to maintain a balanced budget. The maintenance of current services level transit plan is higher than the constrained plan by the amount necessary to fund SCRTD's operations deficit.

The financially unconstrained transit plan incorporated all the system expansion envisioned by the Regional Transit Development Program. Although additional federal funds will be available for some of the added capital expenses, and fare revenues will be higher due to increased patronage, an additional $1,600-million will be needed to fund the program --an amount which could be raised by a 1/3 cent sales tax increase (see Table 7-3).

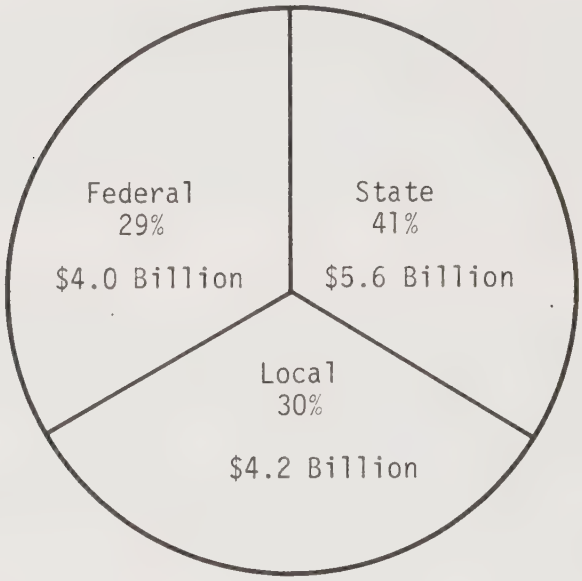
7.2
STATE HIGHWAYS

The financially constrained highway program is based on the assumption that the SCAG Region is able to obtain the legal maximum of capital improvements. (See discussion in the Highway section). Because the constrained alternative already includes considerable capital expansion, the maintenance of current services level highway alternative is given at the same level rather than a lower level. The "expansion", unconstrained alternative calls for an additional $700-million in improvements. This sum could be raised by imposition of a 1.4 cent gasoline tax if the revenues generated were all returned to the region.

7.3
STREETS AND ROADS

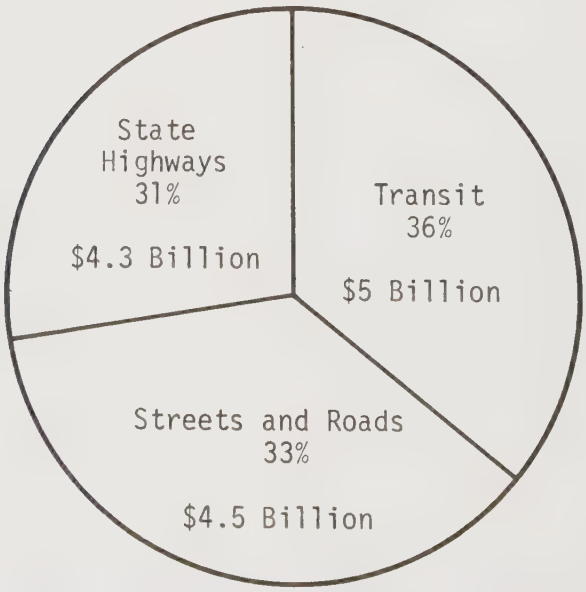
A financially constrained Streets and Roads program will not be adequate to fully fund maintenance and rehabilitation as shown to be needed in the maintenance of current services level plan. To continue Streets and Roads Programs at the historical level, for maintenance rehabilitation as shown in the unconstrained plan (Table 7-2) will require an additional $800-million equivalent to a 1.6 cent gasoline tax increase. (See Table 7-3.)

FUNDS AVAILABLE FOR PUBLIC SURFACE TRANSPORTATION IN THE NEXT TEN YEARS



Total $13.8 Billion

FINANCIALLY CONSTRAINED EXPENDITURES ON PUBLIC SURFACE TRANSPORTATION IN THE NEXT TEN YEARS



Total Expenditures $13.8 Billion

figure 7-1
figure 7-2

EXISTING SOURCES OF FUNDS FOR PUBLIC SURFACE TRANSPORTATION

	5 Years FY 1979-FY 1983	5 Years FY 1984-FY 1988	Total 10 Years	Percent of Total
Federal				
FHWA	1210	1120	2330	
UMTA Sec. 3	390	300	690	
UMTA Sec. 5	409	547	956	
Total Federal	2009	1967	3976	29%
State				
Art. 19 to State Highways	1000	1000	2000	
Art. 19 to Cities and Counties	900	900	1800	
TDA (SB-325)	748	1077	1825	
Total State	2648	2977	5625	41%
Local				
Street & Road Local	1260	1260	2520	
Transit Local	29	43	72	
Transit Other	76	112	188	
Transit Fares	593	871	1464	
Total Local & Fares	1958	2286	4244	30%
	6615	7230	13845	100%

table 7-1

table 7-2

PUBLIC SURFACE TRANSPORTATION EXPENDITURES: 3 ALTERNATIVES
($ Millions)

	Financially Constrained Plan			Maintenance of Current Services Level Plan			Expansion Plan Financially Unconstrained		
	5 Years FY 1979-83	5 Years FY 1984-88	Total	5 Years FY 1979-83	5 Years FY 1984-88	Total	5 Years FY 1979-83	5 Years FY 1984-88	Total
Transit									
Operations	1610	2475	4085	1760	2490	4250	2070	3550	5620
Capital	550	370	920	550	370	920	2340	1910	4250
Total	2160	2845	5005	2310	2860	5170	4410	5460	9870
Highways									
Non-Capital	1070	1360	2430	1070	1360	2430	1080	1470	2550
Capital	1140	760	1900	1140	760	1900	1200	1300	2500
Total	2210	2120	4330	2210	2120	4330	2280	2770	5050
Streets and Roads									
Maint. & Rehab	2160	2265	4420	2160	3170	5230	2160	3170	5330
Capital	85	0	85	85	100	185	970	1430	2400
Total	2245	2265	4509	2245	3270	5415	3130	4600	7730
Total Surface Trans	6615	7230	13845	6765	8250	14915	9820	12830	22650

ALTERNATIVE PROGRAM LEVELS FOR SURFACE PUBLIC TRANSPORTATION

figure 7-3

Potential Funding Sources and Tax Rate Increases to Cover the Funding Gap of the Unconstrained Transit, Highway, and Road Plans

	FY 1979-FY 1988
Transit	
Gap	$1,600 million
Potential Sources	Rate Increase:
Sales Tax	1/3 cent
or Local Gasoline Tax	3.2 cents/gal.
Highways	
Gap	$700-million
Potential Sources	Rate Increase
Local Gasoline Tax	1.4 cents/gal.
Streets and Roads	
Gap	$800-million
Potential Sources	Rate Increase
Local Gasoline Tax	1.6 cents/gal

table 7-3

APPENDIX A
TECHNICAL ASSUMPTIONS

A.1
INTRODUCTION

This appendix identifies the major assumptions made during the development of the Regional Transportation Plan (RTP). It is important to identify these assumptions and recognize their strengths and weaknesses, since they are often the basis for the conclusions reached in the RTP.

One of the inputs to transportation planning is estimates of future travel demand. Surface travel estimates are made with the LARTS Transportation Model. Inputs to the model include socioeconomic data and transportation system characteristics. A key element in developing the socioeconomic data is SCAG's growth forecast policy. The growth policy forecasts population, housing, employment, and land use. The forecasts represent a combination of trends, assumptions, and local and regional policies.

Also included in the RTP are estimates of future air travel demand from SCAG's Southern California Regional Airport System Plan.

Finally, in evaluating strategies for improving air quality and reducing energy consumption, a number of technical assumptions must be made. These are used both in establishing a baseline or reference case and in estimating the relative effectiveness of alternative strategies. These assumptions will be examined in the last section of this appendix.

A.2
GROWTH FORECAST POLICY

Although population growth is increasing in the less developed areas of the region, the SCAG-76-Modified Growth Forecast Policy* checks this trend by allocating a large share of the regional growth to existing urban areas.

Some of the basic assumptions of the SCAG-76-Modified forecast are listed in Table A.2.1. In addition to the assumptions listed in this table, other assumptions can be inferred from the design of the forecast.

- The SCAG region will continue to capture its present share of the national employment growth. Jobs will be created at a simple annual rate of 1.7% between the years 1975 and 2000.

- The labor force participation rates will increase slightly. Male participation rates will decrease slightly due to earlier retirements and female participation rates will increase significantly. This will result in a higher ratio of jobs to populations.

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* SCAG-76 was adopted by SCAG's Executive Committee in December 1975. It was modified slightly in November 1977 for analysis purposes.

SCAG '76 MODIFIED GROWTH FORECAST ASSUMPTIONS

A. Population	
1. Fertility Rate	1. 2.5 live births per woman. Source: 1974 DOF D-100 forecast
2. State Migration	2. 100,000 net immigrants per year. Source: 1974 DOF D-100 forecast
3. Average Household Size	3. A forecasted regional average household size of 2.52 for 1990.
B. Natural Environment	
1. Air	1. Air quality is expected to improve the next decate with implementation of stricter air quality standards. Some of the region, however, will continue to experience periods of heavy smog.
2. Energy	2. Energy will continue to be in short supply and at an increasing cost.
C. Infrastructures	
1. Transportation	1. A more balanced transportation system will be developed over the next decades as specified in the 1975 RTP.
2. Airport	2. a. LAX will continue to be the region's major airport. b. Palmdale Airport will be small to moderate, with 6 to 8 million passenger trips annually by 1990. c. Ontario Airport will develop in accord with the criteria of the SCAG Airport Plan.
3. Water Supply	3. The water supply to the region will be adequate to accommodate forecasted growth.

table A-2-1

- Housing supply will meet housing demand, despite a significant decrease in the number of persons per dwelling unit. This implies that consumer purchasing power will increase in proportion to the cost of housing; the supply of money will be sufficient for the investment in housing; housing technology and institutions will adjust sufficiently; conservation and rehabilitation of existing housing will increase over past rates; and federal, state and local programs will be developed to help meet the housing demand.

- The highway network from the 1975 Final RTP is assumed to be completed. Significant improvements in transit service in the older urbanized areas of the City of Los Angeles are also assumed.

SCAG '76 MODIFIED POPULATION FORECASTS

COUNTY	1975	1995
Imperial	83,250	109,000
Los Angeles	7,020,772	7,732,000
Orange	1,684,500*	2,513,000
Riverside	531,679	797,000
San Bernardino	696,064	913,000
Ventura	432,407	700,000
Regional Total	10,488,672	12,764,000

*County Total -- 1975 California Department of Finance Estimate

SCAG '76 MODIFIED HOUSING UNIT FORECASTS

COUNTY	1975	1995
Imperial	26,256	35,300
Los Angeles	2,695,401	3,100,600
Orange	607,631*	948,400
Riverside	214,889	336,300
San Bernardino	285,831	375,200
Ventura	144,108	240,200
Regional Total	3,974,116	5,036,000

* County Total - 1975 Ca. Department of Finance Estimate

table A-2-2
table A-2-3

SCAG '76 MODIFIED EMPLOYMENT FORECASTS

COUNTY	1970	1995
Imperial	29,000	50,000
Los Angeles	3,170,000	4,008,000
Orange	475,700	1,201,000
Riverside	149,100	286,800
San Bernardino	219,400	359,100
Ventura	115,800	247,200
Regional Total	4,159,300	6,152,100

SCAG's adopted growth forecast is based on policies -- such as reducing vehicle miles traveled and balancing population with jobs -- which are described in the forecast report. The numbers themselves are policies; that is, targets to be sought through A-95 reviews, functional plans, and coordination. The forecasts are not just extensions of trends; instead they modify trends to fit policy. Prior to adopting a forecast, several alternatives are considered. Those alternatives include higher and lower total growth than the adopted forecast, and different distributions of the adopted total. An environmental assessment has been prepared on SCAG-76.

table A-2-4

A.3
REGIONAL AIRPORT SYSTEM ELEMENT

Assumptions made in the 1978 RTP regarding future air travel demand are based upon the following tables. These tables have been updated from those contained in the 1977 RTP.

Regional air transportation forecasts indicate an air passenger travel demand of 44 to 48 million annual passengers in 1985, and 88 to 97 million in 1995, compared to a 1977 level of 35.1 million. Air cargo shipment demand is expected to increase from 0.83 million annual tons today to 1.8 million in 1985 and 5.8 million in 1995. General-aviation demand is projected to grow from the current 11,825 based aircraft to 15,000 in 1985 and 20,000 in 1995 (Table A 3-1).

SCAG REGION AVIATION FORECASTS

	1977	1985	1995
Air Passengers* (millions of annual passengers)	35.1	44 - 48	88 - 97
Air Cargo** (millions of annual tons)	0.83	1.8	5.8
General Aviation (thousands of based aircraft)	11.8	15	20

* Air Passengers enplaned and deplaned at major airline airports

** Air Cargo is defined here to include air freight, air express, and air mail.

While the overall capacity of the regional airport system may be adequate to handle the forecasted air transportation demands through 1985, by 1995 capacity will be a problem unless additional capabilities are developed (Table A.3.2). Although some airport limitations may be necessary in the urban areas due to airspace conflicts, generally the airspace can accommodate the increased air traffic volumes. There will be runway capacity deficiencies by 1995 (Table A.3.3) in terms of both airline and general-aviation operational demands, especially if environmental problems continue to necessitate operating restrictions. Again, this problem will be confined mostly to the urban areas. Improvements in ground access, including a system of remote passenger-processing terminals, will be necessary at most major airline airports in the region by 1995.

table A-3-1

AIR PASSENGER VOLUMES AT MAJOR AIRLINE AIRPORTS

(MILLIONS OF ANNUAL PASSENGERS ENPLANED AND DEPLANED)

AIRPORT	PASSENGERS SERVED		
	1977	1985 Forecast	1995 Forecast
CURRENT MAJOR AIRLINE AIRPORTS			
Los Angeles International (LAX)	28.362	30 - 40	40
Orange County (SNA)	2.159	2	2
Hollywood-Burbank (BUR)	1.999	2 - 3	2 - 3
Ontario International (ONT)	1.681	4 - 6	14 - 20
Palm-Springs Municipal (PSP)	0.506	0.8	1.5
Long Beach (LGB)	0.491	0.5	0.5
TOTAL	35.198	39.3 - 52.3	60 - 67
FUTURE MAJOR AIRLINE AIRPORTS			
Palmdale Area	0.006*	0.09	6 - 10
Imperial County (IPL)	0.005	0.06	0 - 11
Ventura County Area	0.500**	0.05	0.7 - 1.1
TOTAL	0.061	0.20	6.8 - 11.21
TOTAL PASSENGERS SERVED — ALL MAJOR AIRLINE AIRPORTS	35.2	39 - 52	67 - 78
ANTICIPATED REGIONAL DEMAND	35.2	44 - 48	88 - 97
UNSERVED DEMAND	—	0 - 9	10 - 30

*Present airline service point is Palmdale - Air Force Plant 42 (PMD)
**Present airline service point is Ventura County Airport at Oxnard (OXR)

The aviation forecasts adopted in the Regional Airport System Plan rely upon the forecasting model developed for the Division of Aeronautics of the California Department of Transportation. The use of this model provides a forecast revision capability and enables the SCAG region aviation forecasts to remain consistent with forecasts prepared for other parts of California. Inputs to the model involve certain social and economic factors, including population, employment, gross regional product and average disposable income per capita, as well as such aviation service characteristics as travel time and ticket price.

table A-3-2

GENERAL-AVIATION BASED AIRCRAFT FORECASTS

COUNTY	1977	1990	
	Served by Airports in County	County Demand	Served by Airports in County
IMPERIAL	265	465	460
LOS ANGELES	6,785	10,295	9,445
ORANGE	2,280	3,140	2,450
RIVERSIDE	785	1,315	1,795
SAN BERNARDINO	1,035	1,765	2,630
VENTURA	675	1,190	1,425
Regional Total	11,825	18,170	18,205

The original population assumptions employed in the model were the California Department of Finance "Series D" forecasts. These forecasts indicated a 1990 SCAG region population of 13.9 million. The SCAG-76 growth forecast policy has a revised 1990 forecast of 12.25 million. Because of lower population and economic forecasts, the SCAG Executive Committee approved using the aviation forecasts for a later five-year time period until new aviation forecasts are developed for the region.

This modification is reflected in the preceding tables, and partially offsets the high population forecasts originally used in the model. The SCAG-76 1995 population estimate for the region is 12.8 million, which is 1.1 million below the 1990 projection used in the model. Based upon SCAG-76 population forecasts, the aviation forecasts of these tables may still be too high.

The projected rise in aviation demand, though, is much more a response to forecasted economic growth, especially in gross regional product and per capita disposable income, than it is to increases in population. Revisions of the economic forecasts to conform with the new population forecasts are not yet completed. Although it is probable that employment and gross regional product projections will be lowered slightly, substantial overall regional economic growth is still anticipated.

table A-3-3

RUNWAY DEMANDS AND CAPACITIES

DEMANDS	1972	1985	1995
CARRIER			
Total annual passengers (millions)	26.4	44 - 48	88 - 97
Passengers per operation (regional average)	45	75	100
Annual aircraft operations (thousands)	581.4	587 - 640	880 - 970
GENERAL AVIATION			
Based aircraft (thousands)	8.6	15	20
Operations per based aircraft	650+	700	750
Annual aircraft Operations (millions)	5.65	10.5	15.0

CAPACITIES	PRACTICAL ANNUAL CAPACITY (MILLIONS OF OPERATIONS)		
	AIR CARRIER	GENERAL AVIATION	TOTAL
6 Existing Major Air Carrier Airports	.885	1.5	2.4
52 Other Civil Airports in Plan	-	11.9	11.9
Total for 58 Civil Airports		13.4	14.3
22 Other Public-Use Airports* (Not in Plan)	-	3.8	3.8
Total All Airports		17.2	18.1

CAPACITY EXCESS OR DEFICIENCY	1995 ANNUAL AIRCRAFT OPERATIONS
AIR CARRIER	
Assuming only the six existing major air carrier airports and the current aircraft mixes:	5,000 excess to 85,000 deficiency
Assuming continued restrictions due to environmental problems:	up to 300,000 deficiency
GENERAL AVIATION	
Assuming only the 58 civil airports included in the plan:	1,600,000 deficiency
Assuming all 80 public owned or public used airports	2,200,000 excess

*Most of the additional 22 airports are located in outlying portions of region where the demand is low.

table A-3-4

A.4
TRAVEL DEMAND FORECASTING

Estimates of future transit patronage and highway traffic expected on a given transportation alternative are based on forecasting methods employed by the California Department of Transportation in the Los Angeles Regional Transportation Study (LARTS). This travel-demand forecasting process was reviewed and accepted by the Urban Mass Transportation Administration for the recent SCRTD Technical Analysis of Alternatives for Los Angeles. The same models and processes have provided forecasts for the evaluation of regional and sub-regional transportation plans since 1971.

The LARTS multi-modal transportation model consists of four sequential sub-modes: Trip Generation Model, Trip Distribution Model, Modal Split Model, and Trip Assignment Model. These models were developed and calibrated for travel patterns and behavior observed in the origin-destination travel survey conducted by LARTS in 1967 and described in the LARTS 1967 Base Year Report, December 1971. The sub-mode models assume that the relationships established in the base year remain unchanged over time. These precepts are being reviewed and updated based on the 1976 Urban/Rural Travel Survey data. Analysis results to date indicated that trip rates and other behavior are actually very stable over time.

A detailed description of the LARTS model and its assumptions is contained in Technical Report TR/2, The LARTS Transportation Model: Description and Assumptions, January 1974.

Trip generation is the process of forecasting the total number of trips that will begin and end in a given traffic analysis zone (generally two census tracts). Trip generation is assumed to be based on the number of vehicles owned per household, which in turn is a function of median household income, population per housing unit, number of housing units, and proportion of single housing units to total housing units. Trip generation internal to the LARTS area is also assumed to be generated in the zone of residence. Non-home-based trips are assumed to be generated by household but modified by regression equations using population, retail employment, and total employment. Trips which cross boundaries of the LARTS area (external trips) are estimated independently of the internal trip generation procedure by assigning cordon volumes to each of 30 cordon stations.

The trip generation model essentially extrapolates trip-making behavior to a future year and reflects anticipated socioeconomic changes. It cannot predict changes in trip rates resulting from the unavailability of gasoline, for example, or the advent of an extensive mass transit system.

Trip distribution is the method by which the number of person-trips between each pair of zones is determined. The resulting person-trip interchange table is the travel demand for any given land use forecast. Trip distribution is assumed to be a function of four variables: the inter-zonal travel times on the highway network, the number and types of trips produced by each zone, the travel time factors as a function of inter-zonal travel time, and zonal attraction factors. The gravity model used to calculate trip distribution distributes trips between the zone of generation to zones of attraction by the following equation:

$$T_{ij} = \frac{T_i \, F_{ij} A_j}{\sum_{j=i}^{n} (F_{ij} A_j)}$$

Where T_{ij}= trips between any zone i and any zone j

T_i = trips produced at zone i

A_j = attraction factor for zone j

F_{ij}= travel time factor for trips between zones i and j

n = total number of zones of attraction

The attraction factors used were derived by regression analysis from the 1967 O & D data. The major assumption of the gravity model is that the relative frequency distribution of travel times observed in the 1967 Origin and Destination survey remains constant over time. The 1976 travel time distribution is not much changed from that of 1967. The gravity model does not consider the effect of travel cost or mode on the choice of destination.

The mode choice portion of the model splits person trips into transit trips and vehicle trips. Walking is considered only in relation to access to and egress from the transportation system. The mode choice sub-model is the only place in which travel costs and levels of service are considered. The most important factors related to transportation system performance and mode choice are travel "running" times (operational speeds, vehicle acceleration, deceleration; highway speeds, duration of required stops etc.), and "excess" time (walking and waiting times to gain access to the transportation system, and transfer waiting time). Travel costs are computed as functions of transit fare, auto operating costs, auto parking costs, and family income. It is assumed that increased travel costs or reduced levels of service for a particular mode will not reduce the total number of trips generated, but will reduce the share of trips made by that mode.

The assignment portion of the model loads the transit trips (between each pair of zones) onto transit lines represented by the input network, according to a minimum path algorithm, and loads vehicle trips onto the highway network, using two path values. For each zone-to-zone interchange, two paths are developed: a "minimum time" route and a "city street" route (assumed to be 1/3 time on all surface links), to avoid unrealistically high loadings on freeways. For highway assignments, trips between each pair of zones are divided between the two routes according to the California Diversion Formula:

$$p = 50 + \frac{50(d + 0.5\ t)}{\sqrt{(d-0.5\ t)^2 + 4.5}}$$

where p = percentage assigned to the minimum time routing

d = distance in miles saved on the minimum time routing over the city street routing

t = time in minutes saved on the minimum time routing over the city street routing

Travel times between zones are based on average speeds for each link, LARTS subregion (rural, suburban, urban and central city), "peak" and "offpeak" conditions.

INPUTS TO THE LARTS MODEL

Primary inputs to the LARTS model are socioeconomic data and transportation system characteristics. Socioeconomic data such as population, housing, and employment are forecast by SCAG (see Table A.2.1) Growth Forecast Policy). LARTS, in turn, distributes the SCAG totals for the 46 regional statistical areas (RSA) contained within the LARTS area to the 1285 traffic analysis zones (AZ).

The following assumptions were made as part of this process:

- The median household income forecast assumed an annual real income compound growth rate of 1% between 1970 and 1990.
- The income growth rate was applied to the 1970 median household incomes of all AZ's and maintained for those zones considered stable.
- For unstable zones, the median income was modified depending on the projected number and type of dwelling units, a knowledge of current and anticipated new single-family dwelling unit prices and apartment rents in the zone, and factors affecting the income stability of existing units.

While Caltrans is largely responsible for preparing the computerized description, transportation system characteristics are generally defined by the agencies conducting the analysis and evaluation of alternative transit/highway systems. For example, the RTDP regional-core transit lines were defined by SCRTD, with review by UMTA/local governments.

A.5
TRAVEL FORECASTS; MOBILE-SOURCE EMISSIONS

Transit patronage, average daily traffic, vehicle miles traveled (VMT) and mobile-source emissions were estimated by the LARTS transportation model for three systems:

(1) The "No-Build" system, consisting of the 1976 transit system and 1976 highway network, applies existing travel conditions and behavior to the 1990 growth forecast (SCAG-76 Modified).

(2) The "NULL TRANSIT" system projects the impacts on vehicle usage in 1990 of an improved highway system with no change in the 1976 transit system.

(3) The "RTDP" system estimates the impact that the Regional Transit Development Program would have on vehicle usage in 1990, given the 1990 highway system.

LARTS model travel forecasts for the three systems are compared in Table A-5-1 to results obtained for the base year, 1976. The travel demand, i.e. person trips, was obtained in each case with revised trip generation rates and vehicle ownership models derived from data collected in the 1976 Urban/Rural Travel Survey. Analysis of the 1976 survey data showed that vehicle occupancy rates (by trip purpose) were essentially unchanged from those of 1967, when the first origin-destination survey was conducted. The distribution of home-based work trip travel times had not changed significantly from 1967. While the average trips per vehicle remained nearly constant, the per-capita trip rate increased from 3.2 in 1967 to 3.45 in 1976. This is attributed primarily to an increase in the percentage of households owning two or more vehicles and a concomitant drop in the proportion of zero-car households. Furthermore, the average number of persons per household decreased from 1967 to 1976, increasing households at a greater rate than population.

The SCAG-76 Modified Growth Forecast assumes a further drop in family size by 1990, and projects more housing units than the previous growth forecast did, Table A-5-2. Then, given the updated trip generation model, the 1990 travel demand, 42,661,000 person trips per weekday, is about 700,000 person trips greater than the travel demand generated by SCAG-76 Revised. Thus vehicles (LDV) will travel 5,133,000 more miles in the No-Build system - 212,667,000 - under SCAG-76 Mod. than under SCAG-76 Revised. Transit and vehicle usage projected for the No-Build system is simply an estimate of what would result if today's population, employment, and housing were replaced by those of the growth forecast. An average vehicle occupancy factor of 1.2 for work trips was assumed because the 1976 highway system operating in 1990 is deemed to offer no more carpooling incentives than it did in 1976.

With an improved highway system, which includes completed segments in the freeway system, ramp metering on all freeways and other TSM improvements, light duty VMT drops to 205 million in the NULL Transit system. This decrease results primarily from the assumption of 1.3 for commuter vehicle

TABLE A-5-1

LARTS MODEL TRAVEL FORECASTS

	1976 BASE	No-Build	NULL Transit	RTDP
Forecast Year	1976	- - - - - -	- - 1990 - -	- - - - -
Growth Forecast	1976	- - - - - -	SCAG-76 Modified	- - -
Population (LARTS)	10,133,893	- - - - - -	11,828,257	- - - -
Assumptions:				
Auto Occupancy (Work)	1.2	1.2	1.3	1.3
Auto Occupancy (Non-Work)	1.52	- - - - - - -	1.52	- - - - - - -
Fare Structure	'76 Zonal	- -	40 ¢ local & 5 ¢/Fwy mile	- -
Auto Operating Cost ('67$)	5.29 ¢/mi	- - - - - -	5.76 ¢ /mi	- - - - -
Person Trips (Weekday)	34,944,000	- - - - - -	42,661,000	- - - - -
Average Trips Per Person	3.45	- - - - - - - -	3.6	- - - - - - -
Transit Trips	1,174,000	1,570,000	1,571,000	1,848,000
% Transit Usage	3.36	3.68	3.68	4.33
Auto Driver Trips	23,920,000	29,119,000	28,422,000	28,224,000
Auto Passenger Trips	9,850,000	11,972,000	12,668,000	12,589,000
Total Vehicle Trips	33,770,000	41,091,000	41,090,000	40,813,000
Vehicle Miles-Work (LDV)	67,015,000	81,832,000	74,589,000	72,631,000
Vehicle Miles-Non-Work (LDV)	104,113,000	130,835,000	130,388,000	128,496,000
Total VMT (LDV)	171,128,000	212,667,000	204,977,000	201,127,000
Vehicle Miles (HDV)	8,556,000	10,633,000	10,249,000	10,056,000
Total VMT	179,684,000	223,300,000	215,226,000	211,183,000

table A-5-1

TABLE A-5-2

COMPARISON OF GROWTH FORECASTS

COUNTY	SCAG-76 Revised			SCAG-76 Modified		
	Population	SDU	MDU	Population	SDU	MDU
Los Angeles	7,561,540	1,631,561	1,228,780	7,554,637	1,707,566	1,215,994
Orange	2,368,370	490,257	336,935	2,369,120	518,338	340,997
Ventura	631,997	139,688	64,514	632,000	143,933	65,822
Riverside	549,510	164,858	35,762	549,500	168600	36,100
San Bernardino	722,929	204,110	45,260	723,000	212,595	44,650

SDU = Single Dwelling Units
MDU = Multiple Dwelling Units

Source: LARTS Model Input Data

table A-5-2

occupancy. This represents almost a 100 percent increase in carpooling by 1990, brought about by various carpooling incentives incorporated in highway improvements.

Addition of an extensive freeway line-haul bus transit system and a regional core rapid transit line converts 277,000 vehicle trips to transit usage in the RTDP System. This increase in patronage reduces auto driver trips by nearly 200,000 and VMT by nearly 4 million from the NULL Transit system. Achieving a 20 percent reduction of VMT requires the removal of another 14.57 percent, or 31 million vehicle miles, of No-Build VMT. Further reductions of VMT are possible by carpooling incentives or drive-alone disincentives, or combinations of them. These tactics and strategies are discussed in Appendix C-1.

Figure A-5-1 shows past and future estimates of VMT. The latest estimate for which data was available is 180 million VMT in 1976. The relatively low rate of change from 1970 to 1974 reflects the efffects of the 1973-74 oil embargo. From 1974 to 1976, vehicle usage accelerated as gasoline became more available and price increases were absorbed by the economy. For the No-Build system, VMT is projected to increase by 24.1 percent over that of 1976, compared to a population increase of 16.7 percent. Implementation of the Regional Transit Development Program could potentially limit VMT growth to 17.3 percent of that in 1976.

Although VMT will increase, mobile source emissions are expected to decrease, as indicated in Table A-5-3. Emissions were calculated by means of the Direct Travel Impact Model (DTIM), which applies composite (vehicle) emission factors to VMT output by the LARTS model. The revised emission factors, released by the Environmental Protection Agency in January 1978, take into account the mix of model year cars expected to occur in 1990. Thus as more and more "clean" cars enter the fleet, replacing older model year vehicles, mobile source emissions are expected to decrease. The reader should note that the 1990 emissions calculated with the revised EPA factors (January 1978) are about twice as high as the emissions calculated by earlier EPA factors, those published in AP 42 Supplement 5. Even so, the new emission factors for motor vehicles are considered optimistic by the EPA because they assume the existence of an inspection/maintenance program.

TABLE A-5-3

MOBILE SOURCE EMISSIONS INVENTORIES

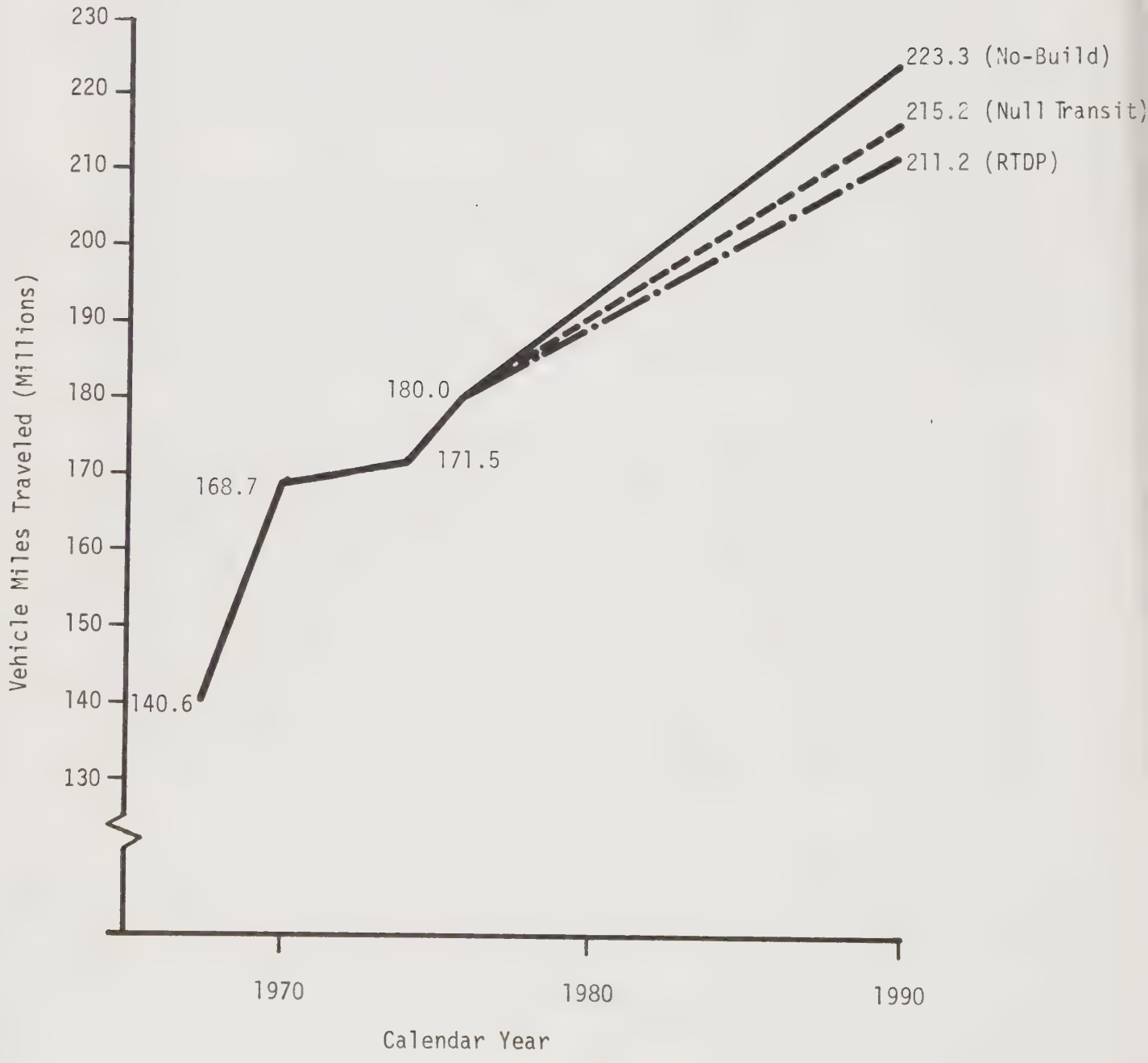
SYSTEM	THC	NOx	SOx	CO	TOTAL
	(tons/day)	(tons/day)	(tons/day)	(tons/day)	
1974 BASE YEAR	1184	931	40	7726	9881
No-Build	353	510	50	3054	3967

Source: Caltrans Direct Impact Travel Model (Jan. 1978)

table A-5-3

VMT ESTIMATES

(Light and Heavy Duty Vehicles)



Source: Caltrans LARTS Transportation Model

figure A-5-1

A.6
FINANCING STATE HIGHWAYS

Figure 6.4-2 Historical Exp. for Const. & Maint. on State Highways in the SCAG Region.
- Amounts shown taken from Statement A-8 "State Highway Program Financial Statement and Statistical Reports".

Figure 6.4-3 Map
Notes on back

Figure 6.4-4 State Highway Tax Dollar Donations -- SCAG Region
- Historical donations calculated from Caltrans' statistical reports and U.S. Highway Trust Fund data.
- Projected donation based on November CHC adopted Planning Program Assembly. SCAG Region generates 48% of California's State and Federal Highway User Tax Revenues

Figure 6.4-5 Highway User Tax Dollars Generated vs. Projected Exp.
- Revenues generated based on November CHC Planning Program and California's estimated payments to the Federal Highway Trust Fund.
  Assumes SCAG Region generated 48% of California's State and Federal Highway User Tax revenues.

Figure 6.4-6 Comparison of Existing State Highway Need to Programmed Expenditures
- Programmed expenditures based on November CHC adopted Planning Program.
- Existing State Highway needs from Caltrans' 1977 "Now" Needs study, capitalized over a 5-year period with costs escalated at 8%/year.

Figure 6.4-7 Financial Plan for State Highways
- Revenues available based on statewide totals available for capital outlay of $2.28 billion for FY 79-83 and $1.526 billion for FY 84-88.
- Assumes SCAG region receives 50% of total State capital outlay.

APPENDIX B

Summary of Public Participation Activities

The Southern California Association of Governments, as an areawide planning organization, formulates plans which affect the future of 10 million people in this six-county, 151-city region. SCAG thus tries to inform and involve members of the public in its activities, to ensure development of sound and viable plans.

Policies of the Public Participation Program

SCAG's public participation program has, over the years, developed its own set of policies for the overall, on-going planning process. These are:

- SCAG is committed to a broad-based public participation program which will:

  a) involve a cross section of affected/interested parties and ensure participation from all segments of the population, including low-income and minority citizens;

  b) provide public access to the planning and decision-making process through a variety of means, including the formal public hearing process;

  c) include a public information component providing complete, readily understood information to help the public formulate their recommendations to decision-makers. In addition, technical material will be available on request.

- SCAG is committed to an on-going process of public participation which encourages public input in all phases of the planning process, including development of public participation programs, plan development, evaluation, and program implementation. Further, SCAG formally considers and responds to inputs from local officials and technical staff, as well as the public. SCAG documents inputs from all of these sources throughout the planning process.

- SCAG is committed to developing a unified public participation program, with appropriate governmental units and participating agencies, which will emphasize joint responsibility for effectively involving the public in the planning process.

- Within the resources of the program, SCAG is committed to providing human and financial resources to implement the Public Participation Program.

Key Elements of the Program

Policies give the Public Participation Program only general direction. In presenting the DRTP, DEIR, and seeking public input for the final documents, these policies are translated into four primary functions: (1) information dissemination, involving a comprehensive media campaign; (2) public involvement in the planning process, through meetings, workshops, and hearings; (3) identification and communication of public concerns to elected officials; and (4) integration of public concerns into the planning process.

As in previous years, two key elements of the program will be public workshops and hearings. Beginning t the end of May and continuing through June, public workshops will be held in each of the counties, culminating in a public hearing to be held in Los Angeles County. Specific dates and locations of the six workshops and the public hearing are printed on the inside of the DRTP cover.

APPENDIX C-1

Air Quality Strategies, Tactics, and Measures

The following strategies, tactics and measures are being considered in the evaluation and included all measures suggested by AQMP Early Action Plan, Clean Air Act Amendments of 1977, Energy Policy and Conservation Act, National Mass Transportation Assistance Act, Subregional Transportation Plans, 1977 Regional Transportation Plan, various literature reviewed, and comments received.

In the attached compilation, an effort has been made to organize the entries according to a consistent application of the following definitions:

-- Strategies are taken to be a statement of an overall approach to achievement of the plan objectives. A strategy represents a policy.

-- Tactics are methods which can be used to effectuate a strategy. In this context, a tactic might represent the work of a program.

-- Measures are specific implementing actions. Compared with the preceding definitions, a measure would be equivalent to a project.

Consideration and comparison of the various listings indicate that there is no simple one-for-one correspondence of the different items. The transportation system is not composed of isolated entities, but constitutes an integrated system. Hence, the attributes tend to be somewhat redundant in terms of the categories used here. However, the attached list with few exceptions lists measures only once, even though their respective effects extend to other categories.

Strategies, Tactics and Measures Proposed For AQA

STRATEGIES	TACTICS	MEASURES
Current Trends	Continue highway construction	
	Transit capital improvements within current funding trends	
	Aviation and non-motorized improvements	
	Current Commuter Computer programs	
	Mandated technological improvements	
Additional Technological Improvements to Reduce Mobile Source Emissions	Improve and extend technological controls on vehicle emissions	Improve/extend vehicle inspection/maintenance programs
		Improve emission controls on off-road vehicles
		Improve/extend retrofit of in-use-vehicle controls
		Impose emission controls on aircraft, railroads, vessels
		Improve vapor emission controls on fuel storage and distribution
		Stimulate anticipated future control technology
Transit System Management, and Efficiency Improvements	Express/Commuter service improvements	Express bus service increases
	Overall bus service improvements to reduce door-to-door travel time	Expanded bus fleet
		Improved frequency of service and reduced headway
	Expanded public transit system service, including route and headway (service) improvements and circulation/distribution (time) improvements, and increased passenger convenience	Expanded bus fleet
		Frequency of service or headways improved
		Improved route alignment
		Increased numbers of bus stops
		Improved fare collection techniques
		Improved information systems and marketing techniques
		Improved security measures
		Improved vehicle comfort and cleanliness
		Integration of services between operators
		Intermodal transfer facilities and coordination
		Local transit service area expansion
		Demand responsive transit service
		Clean bus priority expansion
		Circumferential freeway express bus service
		Transit pass payroll deduction plan
		Transit (bus) stations within regional shopping centers
		Paratransit and other community service systems
		Jitney Systems
	Reduced transit fares and other pricing policies	Overall transit fare reductions
		Monthly transit pass offering reduced fare
	Increased paratransit service (Private sector)	Fringe parking
		Transit node collection/distribution service
		Activity center and other short-distance area-circulation service
		Augmentation of peak period capacity along major urban corridors
		Employer-sponsored subscription and contract vanpools and buspools

	Labor-management changes	
	Increased park-and-ride facilities	Expanded fringe parking for express transit
	Preferential bus treatment	Bus preemption of traffic signals
		Exclusive bus lanes on city streets and urban arterials
	Fixed-guideway transit development	People-mover systems
		Rail transit improvements
		Commuter rail service
	Route evaluation	
	Vehicle communication and monitoring techniques	
	Maintenance improvements	
	System performance evaluation	
High-Occupancy Light-Duty Vehicle Program	Areawide Ridesharing activities	Rideshare brokerage, including: 1. market research 2. carpool locator/matching services
		Park-and-pool fringe area parking lots for carpools
		Promotion through media advertising including public awareness campaign on true auto operating costs
		Vanpooling encouragement (marketing)
		Parking management techniques: 1. parking fee reductions for carpools 2. restrictions of peak-period parking to carpools only 3. preferential parking spaces for carpools
		Legal and economic incentives resulting from government actions
	Employer programs (private and public sectors)	HOV preferential parking
		Vehicle fleet purchasing/leasing for vanpool/carpool commuting
		Employee/vehicle/locator/matching
		Employee subsidies
		Fleet clean-up and control
		Prohibit employers from requiring auto ownership as a condition of employment
		Provide incentives for employers to make fleet vehicles available to employees for carpool commuting
Off-Road Mobile Sources System and Management Improvements	Aviation system and operational improvements	Aircraft towing
		Engine shutdown during aircraft taxi/idle operations
		Increased throttle speeds
		Vapor recovery for aircraft fueling
		Capacity controls through maintaining or reducing overall aircraft activity by increasing passenger load factors
		Fleet mix control
		Aircraft engine emission standards

		Airport facility improvements--such as runway expansion and improved passenger loading facilities
		Require that fuel drained from piston aircraft fuel tanks (during preflight check for presence of water) be properly disposed rather than dumped on ground
	Off-Road Vehicle operating permits by geographic zone	
	Improved scheduling and operations of off-road activities	
	Rail improvements	Investigate the feasibility of railroad electrification
		Upgrade or establish rail transportation in various interregional corridors such as San Diego to San Francisco corridor
	Maritime Improvements	Improved peak tanker operations scheduling
		Require ships in California coastal waters to use clean fuels
		Cause the price of bunker fuel at ports to increase to the same price as other California ports to prevent ships from stopping at local ports for the sole purpose of refueling
		Controls on purging and ballast segregation
	Develop improvements in other off-road activities including construction, recreation vehicles, lawn and garden, agricultural, and related equipment	
Highway System Improvements	Preferential treatment of high-occupancy vehicles	Freeway bus and carpool lanes 1. Take a lane 2. Add a lane
		Ramp-meter bypass lanes for HOVs on freeway access ramps
		Highway-capacity reduction for low-occupancy autos such as exclusion of low-occupancy vehicles from preferential lanes
		Bus and carpool lanes-city streets, arterials
	Traffic operational improvements (improved flow and regulation of vehicles)	Freeway upgrade and control: 1. Freeway ramp metering (non-preferential) 2. Freeway-to-freeway monitoring 3. Elimination of bottlenecks
		Traffic channelization, including progressive signalization expansion and improvement
		Off-street loading
		Reversible lanes
		One-way streets
		Synchronized signalization

		Specialized operating improvements (airport and special events traffic flow)
		Complete elimination of on-street non-residential parking in core areas
		Elimination of on-street parking in bus corridors
		Speed limitation program
		Missing link construction
		Traffic engineering improvements: 1. Traffic responsive controls 2. Roadway elevation alignment 3. Intersection widening 4. Interchange design 5. Curb cuts 6. Restriping 7. Lighting 8. Signs, etc.
		Idling restrictions
		Improved truck routing in urban areas
		Preferential truck lanes and routes
	Major capital Improvements	New facilities
		Ring-road bypasses
Parking Management	Parking surcharges	Parking surcharges in core areas and activity centers
		Parking surcharge with carpool cost reduction
		Outlying activity center parking cost increases
		Parking cost increases related to natural market forces
		Elimination of daily and monthly parking rates
	Parking design improvement/building code modifications	
	Employee incentives	Employee parking-subsidy elimination
	Multi-modal facilities	
	Preferential parking	Preferential parking for carpools
	Parking restrictions or bans	Limit parking supply
		Auto-free zone in activity centers
		Reduction of long-term off-street parking in core areas, activity centers
		Elimination of long-term on-street non-residential parking in core areas
		Total elimination of non-residential on-street parking in core areas
		Parking facility construction moratorium
		Management of supply of parking for new developments
Travel Reductions/ Substitutes	Work rescheduling	Four-day work week/flexible work schedules
	Voluntary trip reduction, including better trip planning	Voluntary non-work trip reduction during peak hours or reductions in daily trip making habits

		Voluntary-trip-reduction promotional program such as limiting business trips through company travel monitoring, car and mileage reimbursement limitations and higher taxes and insurance rates on company-owned vehicles
	Peak-period truck restrictions	Peak-hour truck delivery restrictions
	Increased minimum age of licensed drivers	
	Vehicle ownership limitations	Increased license fees, rates, taxes and insurance rates for second and third vehicles per household
	Auto-free zones	Pedestrian malls in urban core areas and activity centers
	Flexible work schedules and staggered work hours	
	Gasoline rationing	
	Increased commodity movement by pipelines	
	Bicycle facilities and access improvements	Improvements in and increased use of bicycle and pedestrian access systems including bike racks on buses, bikeways and lanes, racks, showers and lockers
	Pedestrian access improvements	Pedestrian facilities and priority treatment
	Communications substitutes	Communications substitute for travel
		Improvements in and increased use of communications (videphones)
	Home goods delivery	
	Increased passenger travel by air and water	
	Truck freight movement substitutes	
Pricing Measures	Toll differentials	Establish activity center vehicle access tolls
	Use tax by area and/or facility	Increase gas tax
	Registration taxes	Automobile registration fee increases
		Selective registration taxes and subsidies
	Subsidies for clean cars, and for vanpools and carpools	Fuel tax increases with carpool/transit subsidies
		Fuel tax increases with vanpool subsidies
	Congestion pricing	
	Prepaid and subsidized transit	Off-peak transit fare subsidization by commercial enterprises
		Transit fare subsidization by employers
		Surcharge on airline tickets and/or airport parking to provide free transportation to airport terminals via public transit and limousine services (i.e., extend the transportation service provided by the airlines/airport operators to include the ground portion of the trip.)
		Same as above for major sporting events

	Speed up vehicle fleet change-over	Government purchase of pre-1968 vehicles Tax older cars Retrofit older cars
	Gasoline tax	Fuel tax/operating cost increases Fuel tax increases with subsidies for carpools, vanpools and/or transit
	Vehicle licensing fee Exemption of carpools and vanpools from regulated carrier status Insurance incentives for carpools and vanpools Highway pricing by length of trip Big car tax	
Manage regional growth through land use/transportation integration		
	Work trip length limitations	Establish governmental employee residential catchment areas Develop employee recruitment incentives for private sector based on a percentage of employees living within prescribed work trip length guidelines
	Limited regional population growth	Taxes and fees on out-of-state migrants for: • Housing sales or rentals • Initial school enrollment • Utilities, telephone, energy, water and other facility surcharges • Increased driver license fees • Increased auto insurance rates
	Better population distribution	Improved design standards for development including better access for house Facility allocation system Discourage drive-in facilities
New Technologies and the Future	Alternative fuels	
	Alternative engines and vehicles Alternative life style changes Alternative travel concepts	
Episode Controls	Travel restrictions and trip allocation program Emergency ride sharing Emergency transit program Other peak-occurrence measures to manage congestion and avoid areas of resulting concentrations	

APPENDIX C-2

A Regional Framework For Achieving Objectives

A preliminary analysis of strategies and tactics has been undertaken in order to determine the transportation system changes necessary to achieve the RTP and AQA objectives for 1995. The following summary of percentage reductions in VMT and equivalent VMT by selected strategy attempts to describe more specifically what these reductions would mean and how they might be achieved. Percentage notations refer to VMT and equivalent VMT as follows:

20% - 1977 RTP
40% - Transportation AQA

STRATEGY: Transit Facility, Management, and Efficiency Improvements

20% Objective — The 1.2% VMT reduction is based on the attainment of 2 million transit person trips. The current RTDP alternatives analysis is forecasting approximately 1.8 million by 1990.

40% Objective — The 2.5% VMT reduction is based on the attainment of 2.5 million transit person trips. This ridership represents the 6% of total regional person trips as established by the 1977 RTP as a transit objective.

STRATEGY: High-Occupancy Light-Duty Vehicle Program

20% Objective — The 3.5% VMT reduction is based on a 1.5 person/vehicle occupancy rate for all trips over a 24-hour period and would require a yearly increase of approximately 87,500 carpools.

40% Objective — The 6.4% VMT reduction is based on a 1.56 person/vehicle occupancy rate for all trips over a 24-hour period and would require a yearly increase of approximately 102,000 carpools.

STRATEGY: Off-Road Mobile Sources System and Management Improvements

20% Objective — The emission-reduction goal for off-road mobile sources is equivalent to a 3.4% reduction of equivalent VMT. This reduction can be achieved by reducing the emissions from jet aircraft, railroads, and tankers by 10% of the theoretical maximum or projected effectiveness if completely successful. The specific measures to be applied are: (1) jet aircraft towing, increased engine idle speed, eliminate delays at the gates and runways, and avoid use or aircraft power unit, (2) conversion of major railroad lines to electric lines, and (3) purging and ballast controls and fuel controls for tankers in the south coast.

40% Objective — The emission reduction goal for off-road mobile sources is equivalent to a 6.9% reduction in equivalent VMT. This reduction can be achieved by reducing the emissions from jet aircraft, railroads, and tankers by 20% of the theoretical maximum or projected effectiveness if completely successful. The measures are the same as those listed above.

STRATEGY: Highway System and Operational Improvements

20% Objective — The 3.0% equivalent VMT reduction is based on the improvement of peak-hour speeds form 26 to 29 mph no change in off-peak.

40% Objective — The 5.0% equivalent VMT reduction is based on improving peak-hour speeds from 26 to 30 mph and 32 to 33 mph off-peak.

STRATEGY: Parking Management

20% Objective — The 1.5% VMT reduction is based on removing 2% of the existing parking spaces at all activity centers and limiting further growth, requiring a 50% increase in parking costs with a 50% reduction in HOV parking fees, and reserving 10% of the total employee parking in major activity centers for HOV.

40% Objective — The 2.5% VMT reduction is based on removing 2% of the existing parking spaces at all activity centers and limiting further growth, requiring a 100% increase in parking costs with a 50% reduction in parking fees, and reserving 20% of the total employee parking in major activity centers for HOV.

STRATEGY: Travel Reductions and Substitutes

20% Objective — The 5.8% VMT reduction is based on the tactic: Voluntary Trip Reduction Including Better Trip Planning, which uses a 3.35 average daily person trip rate.

40% Objective — The 11.8% VMT reduction is based on two tactics. 8.8% is derived from the tactic, Voluntary Trip Reduction Including Better Trip Planning which retains the current 3.25 average daily person trip rate. It should be noted that current forecasts predict a 3.55 rate by 1990. 3.0% is derived from the tactic; Increased Minimum Age Of Licensed Drivers, which examined the travel characteristics, number licensed, and average daily VMT of the region's teenagers and forecasted VMT reductions assuming a licensing age of 18 years for all teenage drivers.

STRATEGY: Pricing Measures

20% Objective — The 1.6% VMT reduction is based on an increase of 50% in the the "real" or non-inflated price of gasoline. Short-term decreases in VMT due to such pricing is expected to be considerably greater than the long-term average.

40% Objective — The 3.1% VMT reduction is based on a doubling (100%) of the "real" or non-inflated price of gasoline.

STRATEGY: Manage Regional Growth Through Land Use/Transportation Integration

40% Objective — The 1.8% VMT reduction is derived from the tactic Work Trip Length Limitations, which concentrates on cutting the 1976 average work trip length of 9.7 miles to 9.2 miles or a reduction of 1/2 mile.

Base Case

The above calculations assume a LARTS Year 1990 Base Projection (SCAG-76) Modified Socio-Economic, RTDP-11, and Highway cc952A1) as follows:

Population	1,834,000 (for LARTS analysis region)
Person Trip Rate	3.55
Transit Person Trips	1,542,000
24-hour Average Vehicle occupancy	1.46
Average work trip length	9.72 miles
Average non-work trip length	6.49 miles
24-hour work-weekday average vehicle miles traveled	203,357,000

APPENDIX D

Transit Service Policies

To complement the service policies, service standards for fixed-route bus services have been developed. They have been continuously monitored, and where appropriate, they have been revised and updated.

The standards shall be used primarily as a planning tool to determine the magnitude and location of services and the cost of proposed plans. They are not intended to be used as a method of allocating funds.

Local Service Standards

The local service standards adopted in 1976 have been updated and revised. Employment density, together with density of dwelling units with zero auto and population density have been considered in the determination of the intensity of bus service. Table D-1 summarizes the relationship among these variables, and Figure D-1 displays this in graphic form.

Table D-1

Local Service Standards

Population* Density (persons per square mile)	Intensity (revised) (primary bus miles per square mile per week)
0 -1,499	-
1,500-2,499	400
2,500-3,499	650
3,500-4,499	900
4,500-5,499	1,200
5,500-6,499	1,600
6,500-7,499	2,000
7,500-8,499	2,300
8,500-9,499	2,700
9,500-10,499	3,200
10,500-11,499	3,600
11,500-12,499	4,000
12,500-13,499	4,500
13,500-14,499	5,000
14,500-15,499	5,600
15,500	5,600+

* Also considered employment density and density of dwelling units with zero auto.

table D-1

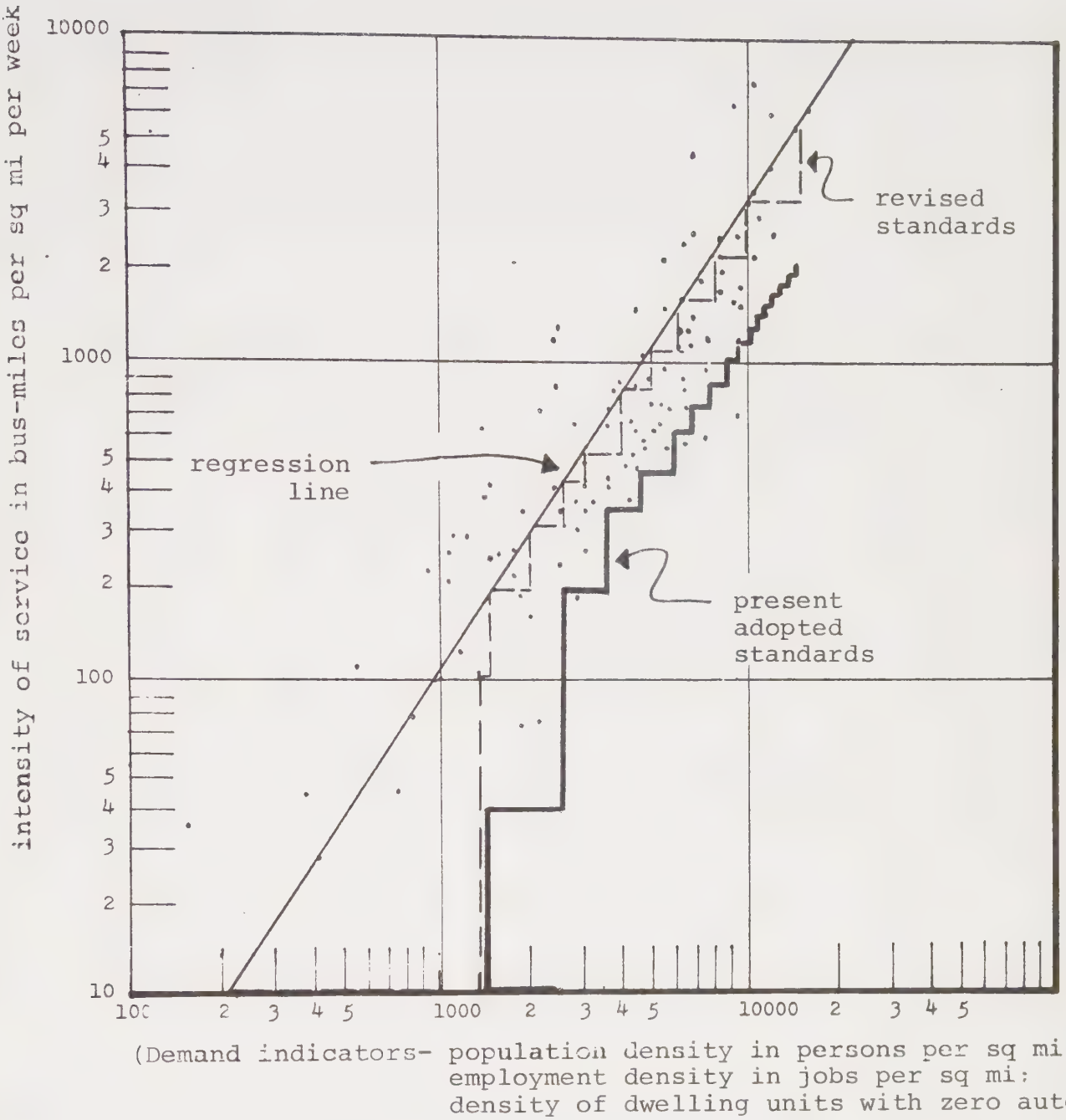


Figure D-1 - The revised local service standards (broken line stairway), relating intensity of service with three demand indicators.

figure D-1

Express Service Standards

The express service standards (as shown in Table D-2) relate a measure for demand with the appropriate transit supply. The table is independent of any model or computer programs used to estimate demand. When the standards are applied to find the magnitude and location of demand, then the LARTS/UTPS model may be used.

Table D-2

Express Service Standards

PASSENGER FLOW (passenger per hour)	COMPOSITE HEADWAY (minutes)	INTENSITY (bus miles per wk per mi)
less than 50	-	-
50	60	25
100	30	50
200	15	100
300	10	150
400	7½	200
500	6	250
600	5	300
1000	3	500
2000	1½	1000
3000	1	1500
6000	½	3000

* The standards were derived from $H = \frac{60CL}{P}$; where

H = headway in minutes;
C = capacity of vehicle;
L = load factor;
P = forecasted patronage.

For study design purposes, C=50 and L=100% were assumed.

Rural Area Transit

Guidelines have been developed to direct the technical studies necessary to augment public hearings. Rural areas are defined as areas other than urban or urbanized. Urban and urbanized areas are those defined by federal and state programs for transportation planning and funding.

To accommodate differences in local need, the sub-regional agency for each county is to assume the lead role in the development of the studies. The sub-regional agency's recommendations are transmitted to the Transportation and Utilities Committee (TUC). TUC then makes its recommendations to the Executive Committee, which has the final approval.

table D-2

Guidelines

(1) Goals, objectives and policies directly related to rural transport shall be developed (if not available) and included in the sub-regional plans. These goals, objectives and policies shall be consistent with those adopted in the Regional Transportation Plan. Concerns such as air quality, accessibility, land-use, modal splits and higher occupancy in vehicles shall be addressed.

(2) Relevant present and future conditions shall be examined. Community profiles shall be compiled on present, short-range and long-range planning horizons. These profiles shall consider the following:

Population
- total population and %'s under 18 years of age, over 60 years of age, and the handicapped
- total households and %'s with zero, and those at and below poverty level
- employment (number of jobs) and % unemployed

Opportunities
- Medical, (utilizing indicators such as number of beds and medical personnel)
- employment, (acres of farming, timber, and square footage of commercial and government institutions)
- educational, (school enrollment by types)
- shopping, (square footage of retail space)
- recreation, (a listing of resort and entertainment places)

(3) There shall be an inventory of existing mass transportation services, including but not limited to taxicab, Greyhound/Continental, social agency and transit operations, either private or public. The current utilization and costs of providing such services shall be examined.

(4) Focusing on the present and short-range planning horizons, trip forecasts (e.g., trip production and attraction tables) shall be developed, utilizing data compiled from Guidelines (2) and (3). Survey data shall also be used, where they are available to bear on the trip-making rates. It shall be assumed that transit dependent persons may make comparable frequencies and types of trips as persons who have access to an automobile.

(5) A desired modal split for trip-making shall be established as an objective for each county and/or community, where appropriate, and to be consistent with Guideline (1).

(6) A transit need is defined as a basic trip-making requirement to the opportunities mentioned in Guideline (2). A trip to the doctor is an example of a basic trip requirement.

(7) The unmet transit need is that difference between the present (actual) trips made (from Guideline (3)) and trips estimated (from Guideline (4)), that should have been satisfied had service existed.

(8) The test for reasonableness considers several cost factors. These factors shall include financial feasibility and cost efficiency. Financial feasibility takes into account the available resources, what share of the transit needs must be satisfied and several alternatives to meet those needs, in part or in whole. Ride-sharing programs shall also be considered.

Cost efficiency reviews existing cost indicators from Guideline (3) examines measures including but not limited to: cost per service mile or hour, passengers per mile or hour, and subsidy per rider. For both factors, fare alternatives shall be developed and evaluated.

(9) Realizing the necessity of considering citizen participation, a public hearing shall be held to present the findings and to gather public inputs.

(10) Utilizing Guidelines (7), (8), and (9), the subregional agency shall then make a judgement that the unmet transit needs, in whole or in part, can or cannot be reasonably met.

APPENDIX E
Highway Evaluation Methodology

The Metropolitan Transportation Engineering Board (MTEB), which serves as the SCAG technical committee for the regional highways system, has been developing a process for establishing regional priorities for major highway projects through efforts of a subcommittee. The MTEB and the Transportation and Utilities Committee have reviewed and endorsed continuing with the proposed process for establishing regional priorities but have reserved final approval of the process pending studying some priorities resulting from use of the process. The process is presently being reviewed by the four county Transportation Commissions and IVAG and VCAG.

The process under consideration involves taking the list of priority projects from each county and applying the following criteria with their respective weight factors to the county projects to establish the regional priority list of projects:

I.	Performance Criteria		80 Points
	A. Safety	30 points	
	B. Delay	10 points	
	C. Volume/Capacity Deficiencies	10 points	
	D. Demand	10 points	
	E. System Continuity	20 points	
II.	Impact Criteria		60 Points
	A. Compatibility with Local, Subregional and Regional Plans	20 points	
	B. Community Support	20 points	
	C. Environmental Impacts (Economic, Natural, Social) and Multi-Modal Benefits	20 points	
III.	Special Factors		60 Points

APPENDIX F
Subregional Plans

- Imperial Valley Association of Governments (IVAG 1977)
- County of Los Angeles, Transportation goals and policies, from County's Environmental Development Guide, adopted October 1, 1970. Goals, policies, and actions from the County's General Plan Element, adopted 1975: and the County's Preliminary General Plan, Transportation Element, January 1977; not adopted
- Riverside Countywide Transportation Study 1977, update; and Riverside Countywide Transportation Study Final Report 1977
- San Bernardino Associated Government (SANBAG), Transportation Plan for San Bernardino County, January 1975: San Bernardino County Subregional Transportation Plan, pre-draft, 1977
- Ventura County (VCAG), Ventura County 1976 Subregional Plan, and Transportation Plan, Ventura County, update, adopted October 1977
- Orange County, Issue Paper, 4/10/78

APPENDIX G
Airports of Regional Significance

The following criteria define airports of regional significance:

Any airport meeting or projected to meet one or more of the following minimum levels of activity.

50 based aircraft.
25,000 annual itinerant operations.
35,000 annual local operations.

Any airport served by a CAB or PUC certificated route air carrier.

Selected public use airports located more than 30 minutes ground access time (about 20 miles) from the nearest airport meeting the above minimum-activity-level criterion.

Other airports in the regional plan are airports having special significance.

A specially significant airport is one which provides special or unique services to the region as a whole or to a major portion thereof or has a direct effect on the operation of a regionally significant airport.

- Airports of special significance to the region include:

  All active military airports.

  All publicly owned or operated airports.

  Selected airports providing unique recreational opportunities (e.g., skydiving and sailplane soaring).

  Selected airports providing special emergency facilities (e.g., fire fighting bases).

  Selected airports having an existing or potential airspace conflict with an existing regionally significant airport.

All remaining airports in the region are considered to have local significance only and are not included in the regional plan. These airports include:

- Most privately owned, publicly used airports not meeting the minimum-activity-level criterion.
- Most privately owned, privately used airports.
- All civil heliports and helistops.

The regional or local significance of an airport is primarily an indication of its importance to the region as a whole, not to the local airport area. An airport is not necessarily of less importance to the community it serves because it is classified as having special or local significance rather than regional significance.

9.0 GLOSSARY OF TERMS

Term	Definition
Accessibility	Characteristic of the transportation system itself and not of users of that system. It relates to the geographic coverage of the system, time of operation, the way various transportation links connect, and the travel time required to reach any area within the region.
Full Accessibility	That characteristic of both demand-responsive and fixed-route systems that allows the maximum number of disabled persons in each disability category to move freely, unencumbered by barriers, on and between systems,from origin to desired destination. Specifically, full accessibility has three components: 1. Access to vehicles, 2. Access within and between modes, 3. Access to opportunities. In practice, conversion of existing services and facilities to a higher level of accessibility can be accomplished by eliminating travel barriers associated with each of these three components.
Action	A specific activity to be undertaken in the near-term as a step toward achieving a particular policy or objective.
Arterial	General term denoting a roadway primarily for through traffic, usually on a continuous route.
Article 19	Article of the State Constitution. Designates how State taxes on motor fuel and motor vehicles may be used for streets and highways and guideway transit.
Barrier Reduction	Planning or action to reduce or eliminate impediments to movement by the elderly and physically handicapped in transportation systems and public facilities, or in the design thereof.
Bus-on-Freeway	Line-haul express bus service on existing and future freeways.
Bypass	A reserved traffic lane in a metered freeway ramp entry which permits buses or high-occupancy vehicles to bypass the ramp traffic control signal when entering the freeway.
Carpool	Prearranged automobile ride-sharing.

Circulation/ Distribution System	Provision of transit service in an activity center (such as downtown Los Angeles or Westwood) for improved intra-area circulation. May involve use of such measures as pedestrian overcrossings, mini-buses, or moving sidewalks. One element of the Regional Transit Development Program is a circulation/distribution system for the Bunker Hill-Central Business District area of Los Angeles.
Community Level Transit	System providing transit service within a local community.
Commuter Computer	Common name for non-profit corporation Commuter Transportation Services, Inc., which provides information to aid the formation of carpools and ride sharing.
Commuter Rail	Operation of rail service on existing railroad lines for service to commuters.
Constrained/ Unconstrained Financial Plan	The 1977 RTP has both a constrained and an unconstrained financial plan. The constrained plan limits construction, maintenance, and operation of the transportation system to that which can be funded without increasing taxes and using available state and federal funds. The unconstrained plan is the cost of funding all improvements recommended in the RTP. To fund this total package would require an increase in taxes.
County Transportation Commission	AB-1246 created County Transportation Commissions in Los Angeles, Orange, Riverside and San Bernardino Counties for the purpose of short-range transportation planning. SCAG will be working closely with these commissions.
Disincentives	Measures designed to discourage certain actions or behavior. These include: parking surcharges, increased gasoline taxes (if intended to decrease travel), and ramp metering.
Demand-Responsive/ System	A transportation system which responds to the requests of users; may be non-stop or multi-stop service to destinations, e.g., Dial-a-Ride, taxi.
Dial-A-Ride	Transit service where individual trips are scheduled by means of a telephone call. The service is flexible, only responds to demands, and is usually provided by a van or mini-bus.
Directional Flow Experiments	Use of one-way traffic flow on selected major arterials to accommodate peak hour traffic and decrease travel time.
Efficiency Standards	Criteria used to measure the operating efficiency of transit systems in terms of service provided and costs involved.

Elderly	Persons 60 years of age or older.
E/H Interim Program	A SCAG interim or near-term program to provide more accessible transportation to the elderly and the handicapped through identifying and eliminating barriers to travel on existing transit systems and identifying transportation services by other than municipal and district systems.
Express Busway	An exclusive freeway lane either separated from or on one of the lanes of the freeway, i.e., the San Bernardino Freeway Express Busway, that allows buses to operate separate from normal traffic.
Facility	A facility allowing a transportation mode to operate (including travel, as well as discharge and loading of pasengers). This includes highways, guideways, terminals, and administrative support facilities.
Fixed-Guideway System	A transit system with an exclusive guideway. This could be a rail transit system, a separated roadway for use of buses only, or other means of providing a separate right-of-way for transit.
Fixed-Route Transit Service	Scheduled service operating repeatedly over the same street or highway pattern on a determined schedule.
Free-Flow Condition	Freeway condition where traffic flow is uninterrupted by stopping or excessive slowing.
General Aviation	All aircraft which are not commercial airlines, air-carrier aircraft or military aircraft.
Goal	A goal describes a desired condition or set of conditions toward which effort should be directed.
Ground Access	Ability of air passengers and air freight handlers to reach airport terminals through use of automobile, public transit, taxi, or other means of ground surface.
Growth Forecast Policy	SCAG adopts forecasts of future population, housing, land use and employment which modify current trends. These growth forecast policies then become the basis for planning, grant reviews and sizing future public facilities.
Handicapped	Those individuals who, by reason of illness, injury, age, congenital malfunction, developmental disabilities, or other permanent or temporary incapacity or disability, including

Handicapped (Continued)	those who are non-ambulatory wheelchairbound and those with semi-ambulatory capabilities, are unable without special facilities or special planning and design to utilize mass transportation facilities and services as effectively as persons who are not so affected.
High-Occupancy Vehicle (HOV)	Motor vehicle occupied by two or more persons. Vehicles include automobiles, vans, buses, and taxies.
Incentives	Measures designed to encourage certain actions or behavior. These include inducements for the use of carpools, buses, and other high-occupancy vehicles in place of single-occupant automobile travel, e.g., preferential freeway lanes and parking, ramp bypasses, bus passes.
Inspection Maintenance Program	A program of periodic vehicle inspections to reduce air pollution. If, upon inspection, certain emission standards are exceeded, specific vehicle maintenance would be recommended, e.g., tune up, catalytic converter replacement.
Institutional Arrangements	The method of coordinating between agencies involved in related activities. This includes formal and/or operational relationships between transportation services, facilities, and control.
Inter-modal Transfer Points	Transportation terminals or locations where people can change their travel from one mode to another, i.e., auto to bus, bus to airline, etc.
Jitney	Motor vehicle operating continuously over a fixed route and supplying service to passengers who hail a ride any place along the routes.
Joint Powers Authority	A legally binding agreement between two or more units of government which establishes a multi-jurisdictional special district with specified powers and responsibilities.
Light-Duty Vehicle	Any motor vehicle weighing 6,000 pounds or less (most passenger automobiles).
Local Transportation Fund	Pool of funds from state sales tax established by SB-325 and SB-821 for local transportation purposes, e.g., community level bus system, bikeways.
Maintenance/ Rehabilitation	Activities associated with keeping the existing transportation system in a safe and usable state and protecting the public's investment.

Maritime	Transportation facilities or operations relating to ports, harbors, and water travel.
Memorandum of Understanding	Formal document between agencies defining interagency coordination and agency responsibilities. The SCAG public transit operator Memorandum of Understanding is an example.
Metro	Geographic area which is reasonably self-sufficient and geographically cohesive. It may or may not be encompassed by a single political boundary, e.g., the Wilshire District of Los Angeles or the City of San Bernardino.
Missing Link	A section of roadway to be constructed to freeway or expressway standards connected to completed portions of a designated route or connecting a constructed portion of a designated rote to one other major facility where the proposed section is less than six miles in length and provides a continuity of service in an established travel corridor.
Mixed Flow	Traffic movement having autos, trucks, buses, and motorcycles sharing traffic lanes.
Mobility	Mobility is a transportation system user characteristic. It refers to the ability of the user to take advantage of the available transportation services.
Mode	A means or method of conveyance, e.g., auto, airplane, bicycle, bus, etc.
Multi-modal	Involving more than one mode of travel.
Non-motorized	Transportation that is not powered by a motor, e.g., horseback riding, bicycling, hiking, walking, etc.
Objective	Precise and quantifiable statements of ends to be achieved in advancing toward goals.
Off-Road Vehicle	Vehicles which do not operate on the public road and highway system, e.g., dirt bikes, snowmobiles, farm machinery, construction equipment.
Operator	Agency responsible for providing a service or operating a facility, e.g., SCRTD is a transit operator, CALTRANS is the operator of the state highway system.
Paratransit	Those types of public transportation whose characteristics are between those of the private automobile and conventional scheduled transit, e.g., taxis, jitneys, dial-a-ride, carpools, vanpools, subscription bus service.

Parking Management Strategies	Planned procedures whereby automobile parking in metropolitan areas is controlled or managed for purposes of controlling traffic, access, and mobility.
Peak Period	Refers to the time of most intensive use of a service or facility. In terms of travel, generally there is a morning and an afternoon peak on the region's streets and highways.
Phased Decision-Making	The phasing of decisions so that actions that are needed in the short-term are taken, but options are not foreclosed for future action.
People Mover	A public transportation system where waiting time is minimal and usually consists of small vehicles or continuous conveyance operating over short distances, e.g., moving sidewalks, automated cars. A specific type of circulation/distribution system.
Person Trip	A trip made by a person.
Planning Policies	Policies which direct the course of future transportation planning in the region.
Preferential Treatment	Privileged treatment for high-occupancy vehicles and buses in the use of traffic lanes, freeway lanes and entry ramps, parking facilities, and traffic control for the purpose of inducing shifts to HOVs and buses.
Preliminary Engineering	Engineering design and cost analysis conducted prior to final detailed design and construction.
Private Sector	Non-governmental, profit oriented service providers. The economy minus the governmental sector.
Policy	A policy is a guide for decision-making. Policies imply commitment to goals and define courses of action directed toward fulfilling these goals.
Project Development	Preliminary engineering and environmental assessment conducted prior to the start of project construction.
Proposition 5	Ballot proposition adopted in 1974 which allows the use of gas tax funds available to a county area to be diverted to guideway transit use if the voters' county has passed a similar local proposition. In the SCAG region only Los Angeles County voters have adopted such a local proposition.

Public Transit	Transportation service by bus, rail, paratransit, airplane, and ship offered by an operator on a scheduled basis to the general public.
Ramp Metering	Traffic signal control on an entry ramp to a freeway for regulating vehicle access.
Region	The SCAG region is composed of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties.
Regional Transit Development Program	The adopted four-element program for improved transit service consisting of a transportation system management element, regional high-level bus-on-freeway system, Los Angeles downtown circulation-distribution system, and a regional core area rapid transit element.
Revenue Bond	Bonds whose principal and interest are payable exclusively from earnings of a public enterprise.
Route Deviation Service	A transit system where the transit vehicles purposely deviate from their routes to provide more direct service to their patrons.
Section 5	The UMTA Act of 1964, as amended by the Urban Mass Transit Assistance Act of 1974, provides a six-year mass transportation assistance program (capital or operating assistance) for urbanized areas apportioned on the basis of a statutory formula.
Short-Range Transit Plan	The five-year plan for development of transit service in the SCAG region.
South Coast Air Quality Maintenance Area	Area designated by the state for the purpose of air quality planning. The area encompasses portions of Ventura, Los Angeles, Orange and Riverside Counties, contains 97% of the region's population, and is the most seriously impacted portion of the region in terms of air quality.
Starter Line	The initial segment of a fixed-guideway transit system.
Subregion	A county or other smaller area within the SCAG six-county region.
Subscription Bus Service	Prearranged ride sharing of regularly scheduled transportation service, for which passengers generally agree to pay a monthly fee.

System Development	Capital intensive additional development of the transportation system including road construction, rapid transit, expanded ports and new airports.
System Management	Making better use of the existing transportation, using such methods as encouraging carpooling, increasing transit ridership, and increasing the carrying capacity of highways, airports and other facilities. Generally, these methods cost less and can be implemented more quickly than system development actions.
System Policies	Policies applicable to the entire transportation system.
Traffic Management (Traffic operational Improvements	Regulation and control of the movement of traffic to expedite flow and reduce congestion. Techniques include signal synchronization and restriping to provide left turn lanes.
Transit Corridors	A path several miles in length and one-quarter mile to one mile wide within which line-haul transit service is provided or planned. An example is the Wilshire corridor.
Transit-Dependent	Individual(s) dependent on public transit to meet private mobility needs, e.g., unable to drive, not a car owner, not licensed to drive, etc.
Transit Service Policies	Policies which establish a priority rating for allocation of available resources based on minimum coverage and intensity standards for local service. The first priority is to maintain existing service, second is to improve service to below-standard areas, and third is to support service improvements to above-standard areas.
Transportation Systems Management (TSM)	An element of the Regional Transportation Plan which addresses short-term improvements to maximize the efficiency of the existing transportation system. Areas for review include traffic engineering, public transportation, regulations, pricing structures, management, and operational improvements (does not include system development).
Value Capture Financing	Emergent concept based upon the ability to recoup the social and economic benefits created by the construction of a public facility (e.g., transit system), through the amount of income generated from the enhancement--the increased value--of real property. Tax increment financing is one example of a value capture financing technique.

ACRONYMS

Plans and Programs

ADAP	Airport Development Aid Program
AQMP	Air Quality Maintenance Plan
CAAP	California Airport Aid Program
EIR	Environmental Impact Report
FARE	Uniform Financial Accounting and Reporting Elements
HOV	High-Occupancy Vehicle
LARTS	Los Angeles Regional Transportation Study
RTDP	Regional Transit Development Program
RTP	Regional Transportation Plan
TSM	Transportation System Management

Legislative / Administrative

AB-69	Established the state and regional transportation planning process, and mandates the preparation of a regional transportation plan.
AB-1246	Created county transportation commissions in Los Angeles, Orange, Riverside and San Bernardino Counties.
SB-325 (TDA)	California Transportation Development Act -- allocates portion of sales tax revenues to transit and streets and roads.
SB-821	Amended SB-325 to create a bicycle-pedestrian program.
SB-1687	Established funding for new (Article 4.5) community-level transit in Los Angeles and Orange Counties from SB-325 moneys.
SB-759	Amended SB-325 (TDS) program requiring performance audits and other provisions relative to funding limitations.
AB-402	Created California Transportation Commission and revised state and regional planning and programming procedures for transportation.

Technical Abbreviations

CBD	Central Business District
CO	Carbon Monoxide
LAX	Los Angeles International Airport
LOSSAN	Los Angeles - San Diego Corridor
MAP	Millions of airline passengers
NMHC	Non-methane hydrocarbon
NOx	Nitrous oxides
PRT	Personal Rapid Transit
RSA	Regional Statistical Area
VFR	Visual Flight Rules
VLF	Vehicle license fee
VMT	Vehicle miles traveled

1978 DRTP Attachment

Summary of Changes from 1977 RTP

I. Purpose

This attachment is presented to allow easy identification of changes made from the 1977 RTP to the 1978 DRTP.

II. DRTP Format Changes

The previous format has been revised slightly in this year's draft to conform to Assembly Bill 402 requirements for policy, action, and financial elements. To reflect this clearly, all policies have been gathered together in Chapter 5. As in last year's document, actions remain within each modal section or chapter, and are divided into two categories: (1) Transportation System Management actions, (2) System Development actions. Last year's outline and this year's are compared below.

1977 RTP	1978 Draft RTP
1.0 Summary	1.0 Summary
2.0 Plan Overview	2.0 Introduction (Purpose, Process, Content)
3.0 Goals and Objectives	3.0 Issues and Problems
4.0 Policies and Actions	4.0 Goals and Objectives
4.1 Multi-modal	5.0 Policies
4.2 Automobile	
4.3 Transit	6.0 Programs and Actions
4.4 Airport System	
4.5 Non-motorized	6.1 Multi-modal
4.6 Highways	6.2 Automobile
4.7 Maritime and Rail	6.3 Transit
4.8 Financial Plan	6.4 Highways
	6.5 Airports
5.0 Subregional Plans	6.6 Non-motorized
	6.7 Maritime and Railroads
6.0 Appendices	
	7.0 Finance
7.0 Glossary	
	8.0 Appendices
	9.0 Glossary

III. Summary of Changes by Chapter

The following summarizes the intent of changes in each chapter of the RTP.

Chapter 1.0 SUMMARY

This is an updated version of the summary that appeared under a separate cover for the 1977 plan.

Chapter 2.0 INTRODUCTION

A brief section on subregional coordination (2.2.2) has been added to last year's document to show how subregional plans were used in preparing the current draft.

Chapter 3.0 ISSUES AND PROBLEMS

This chapter elaborates on some of the key issues facing the region (financing, air quality, energy consumption, congestion, and increasing user costs). The text is an elaboration and update of the 1977 document, and continues the discussion of issue areas found originally in the SCAG 1974 Critical Decisions Plan.

Chapter 4.0 GOALS AND OBJECTIVES

This chapter reflects those goals and objectives (except Ridesharing) adopted in last year's plan. The new ridesharing objective below is an outgrowth of the current ridesharing program of SCAG, Caltrans, and the County Transportation Commissions.

High-Occupancy Light Duty Vehicle Ridesharing Objective

- o Increase the number of multi-occupant light-duty vehicles (i.e., carpools, vanpools, etc.) currently 2 million, to 3 million by 1990, for both work and non-work trips. NEW

While the major thrust of the ridesharing effort is aimed at the work-trip during morning and evening peak hours, it is believed that significant contributions toward achieving established regional mobility, air quality, and energy goals will be realized only if we can develop and implement a more comprehensive program. For this reason, we define the ridesharing objective in terms of a 24-hour average work-weekday, including all trip purposes. Given this more inclusive framework, it is estimated that the number of existing light-duty vehicles defined as multi-occupant (24-hour, all trip purposes) will need to increase from 2,000,000 in 1976 to about 3,000,000 in 1990.

Chapter 3.0 POLICIES

This chapter is new. Formerly, the policies were included in each of the modal sections and divided by System Management and System Development. The division has been dropped in favor of dividing only actions in this fashion. (The actions remain in the modal sections.)

Some policies are new, and some have been dropped; they are so labeled in the right-hand margin. Each of the policy changes is reflected below by modal section. New policies carry out the numbering system of the draft RTP. Below each added or deleted policy is an explanation for the change.

5.1 Multi-Modal Policies

Dropped Policies

- All plans for transportation services shall include methods to provide transportation services for transit-dependent persons to include persons with developmental disabilities, the physically disabled, the elderly, the low-income, and the young. DROPPED

  Comment: Incorporated into policies 9 through 15 under Transit.

- Subregional transportation plans must be prepared using a minimum of a thirty-day review period from publication to public hearing. A minimum of fifteen days must be provided between the close of the review period and plan adoption. DROPPED

  Comment: Changed by Executive Committee action, November, 1977.

- Updates, if any, of subregional transportation plans shall be submitted to SCAG by August 1 of each year. DROPPED

  Comment: This date is now incorrect. Subregional RTP guidelines and dates will be developed later.

- The Regional Transportation Plan must include transportation activities of regional significance. (Existing definitions are found in 4.6 for Highways and 4.4 for Aviation). DROPPED

  Comment: This has been dropped here and included only in the proper modal sections where needed.

- Consider growth impacts and transportation requirements of goods movement modes and facilities in refinement of the Regional Transportation Plan. Goods movement modes and facilities include rail, truck, ship, pipeline, and air modes as well as major terminal and warehouse facilities. (See Maritime and Railroad, Section 4.7) DROPPED

  Comment: This has been dropped in the multi-modal section and kept in essence under maritime, railway, and aviation.

o Coordinate transportation-related air quality policies and actions with Air Quality Maintenance Planning activities. DROPPE

Comment: Now included as policy #34 under "Air Quality Policies".

New policies proposed in the DRTP

11. SCAG should serve as a coordinating and facilitating agency for the development of region-wide policies on transportation issues, and positions on state and federal transportation legislation, regulations and programs. NEW

Comment: Recommended by staff based on earlier institutional arrangement policies adopted by SCAG Executive Committee in Nov. 1977.

12. SCAG should actively participate in the formulation of state-wide positions on transportation issues affecting local and regional agencies. NEW

Comment: (Same as above.)

13. Communication between the private sector and all public bodies involved in decisions on transportation issues should be actively encouraged, particularly in the early stages in the development process. NEW

Comment: Many policies are implemented by the private sector; staff therefore recommends that there should be private-sector input during the planning and development stages.

34. Transportation systems planning within the SCAG region shall work cooperatively with the regional Air Quality Maintenance Planning process to attain federal and state health standards for ambient air quality at the earliest achievable date, and to maintain the standards thereafter. NEW

Comment: Recommended by staff, based on Executive Committee Action of January, 1978.

44. Transportation energy requirements shall be minimized by: NEW

a) supporting planning, programming and implementation efforts which conserve energy.

b) encouraging technological changes that conserve energy.

c) educating users of transportation energy about the costs of various modal alternatives.

Comment: This is a summary of the 1977 RTP's policies relating to energy, found in that document's multi-modal section.

5.2 Automobile Policies

Nothing added or dropped. (Ridesharing policies are now included in TSM.)

5.3 Transit Policies

Dropped policies

o SCAG shall support the implementation of the interim elderly and handicapped program recommendations. DROPPED

Comment: Interim programs are now included in the Short Range Transit Plan submitted by each transit operator.

o As of March, 1977, SCAG approval of transit grant applications shall be based, in part, upon the existence of an approved interim program in the current subregional transportation plan for the handicapped. DROPPED

Comment: (Same as above.)

o Adopted Transit Service Policies shall be used to measure the level of transit need in the region. DROPPED

Comment: Replaced by policy #1 (below) in DRTP Transit section.

1. SCAG encourages compliance with the local and express bus service standards. (Rail, rural, and paratransit service policies to be developed.) NEW

Comment: Developed through SCAG's Transit Advisory Committee.

2. The priorities for funding transit services are as follows: NEW

first priority - maintenance of existing levels of services, including present local and express services (this assumes existing services are needed).

second priority - improvement of services on over-crowded lines.

third priority - improvement and/or expansion of services in deficient areas, as defined by the adopted local service standards.

fourth priority - improvement and/or expansion of express services, using the express service standards.

Comment: Developed through SCAG's Transit Advisory Committee work.

8. Transit and paratransit operators shall coordinate their planning and programming with other agencies, including city and county traffic and engineering departments. NEW

This can be accomplished by:

a) efforts to bring providers of similar transportation services together to discuss coordination and consolidation strategies;

b) the development of joint powers agreements and contractual arrangements between service providers;

c) requiring applicants for new paratransit operations to show that existing resources are inadequate, and explain how new services will be integrated with existing services.

Comment: The above policy summarizes several policies from pages 4-19 and 4-20 of the 1977 RTP.

22. Each public transit operator will prepare a Short Range Transit Plan (SRTP) as required to meet federal guidelines. NEW

Comment: Transit Advisory Committee has agreed that federal, state, and SCAG reporting requirements should be consolidated in a Short Range Transit Plan to be submitted by each operator seeking federal or SB 325 subsidies. The Transit Advisory Committee, in September, 1977, approved an outline of SRTPs. In addition, the issue of requiring SRTPs was discussed at the joint Caltrans/SCAG/CTCs meeting held on April 28, 1978, at which time it was agreed that SRTPs should be required.

5.4 Highways

(Highway policies related to ridesharing are found in the TSM section.)

Dropped policies

o SCAG endorses construction of projects in the FY 77 Highway Commission budget and the FY 78 Highway Commission budget as of April, 1977. DROPPED

Comment: The California Highway Commission has been replaced by the California Transportation Commission. This policy has been reworked into #8 under Highways.

o SCAG endorses project development activity on projects approved as part of the Regional Transportation Plan. This also includes the project categories of maintenance, rehabilitation, operational, safety, and compatibility improvements. DROPPED

Comment: This has been replaced by policy #8 under Highways.

o SCAG endorsement of project development activity on the CALTRANS work plan (which includes the 1976 CALTRANS 6-year planning program, as approved by the Highway Commission in October, 1976, and several additional projects) is made with this understanding: that prior to CHC approval of the next multi-year planning program and/or annual budget, CALTRANS will report to the TUC and Executive Committee as to how they actively considered the adopted RTP in the formulation of that multi-year planning program and annual highway budget; and that if CALTRANS cannot follow the RTP recommendations, that this report justify the reasons for not being able to do so. DROPPED

Comment: Caltrans has accomplished the above; the policy is obsolete. Bob Datel, District 7 Caltrans Director, responded to the Executive Committee relating to the above concerns. (May 1977)

New policies in the 1978 DRTP

7. Regional priorities for missing links and new highway construction will be based on subregions' recommended lists. NEW

Comment: In response to the highway planning and programming process established by AB 402, the Metropolitan Transportation Engineering Board is preparing a methodology for prioritizing highway projects.

8. In accordance with AB 402, the RTP shall be the guiding document for State Highway programming in the SCAG region. NEW

Comment: This responds to direction from AB 402 and establishes the Regional Transportation Plan as the guiding document for Caltrans' preparation of the proposed State Transportation Improvement Program.

5.5 Airport System Policies

o SCAG's primary objective in aviation planning must be in the finite definition of areas of forecast public demand for air services and facilities. DROPPED

Comment: Staff recommends that this policy be changed to the policy shown below.

2. SCAG's primarily responsibilities in aviation planning are to NEW

a) forecast travel demand

b) coordinate system design

c) organize institutional arrangements.

Comment: (See above.)

18. Planning for allocation of traffic among existing airports and for the development of major new airports should consider the relative ability of airports to comply with the California Environmental Standards or superseding Federal Regulations. NEW

Comment: Developed by the Aviation Transportation Advisory Committee (ATAC) in response to a request of the City of Inglewood.

21. At Hollywood-Burbank, Long Beach, Orange County, and Palm Springs Airports, the primary emphasis should be placed on achieving higher load-factors on commercial aircraft presently using the facilities; and, secondly, substituting quieter, higher-capacity aircraft for aircraft currently being utilized. NEW

Comment: A rewrite of an existing policy on page 4-41 of the 1977 RTP.

22. All airports of regional significance, especially those whose future existence is threatened, should be protected by every means. NEW

Comment: A rewrite of a policy on page 4-42 of the 1977 RTP.

30. Aircraft noise and air pollution should be reduced to an acceptable level. NEW

Comment: A shortened and improved version of a policy on page 4-42 of the 1977 RTP.

5.6 Non-Motorized Policies

Nothing added or dropped.

5.7 Maritime and Railroad Policies

Nothing added or dropped.

5.8 Financial Policies

Dropped policies

o That any available unused Section 5 funds from FY 1975, 1976 and 1977 be made available to the Southern California Rapid Transit District for operating losses incurred during the FY 76 and 77. DROPPED

Comment: This task has been accomplished.

- Allocate within the Los Angeles-Long Beach urbanized area Section 5 funds based upon the Regional Short Range Transit Plan up through FY 78 as adopted or modified. DROPPED

  Comment: This is now a County Transportation Commission responsibility.

- The Transit Service Policies which call for first funding of existing service, and second, expansion of service in areas deficient according to the service standards and transit efficiency standards, shall be used as criteria for the allocation of state and federal transit resources. DROPPED

  Comment: This has been replaced by policy #2 (page 10 of this document) under Transit.

- SCAG shall develop an equitable program of transit funding support to transit districts and municipal transit operators. This program shall identify alternative sources of transit funding to assist in establishing an equitable and realistic funding base for all transit operators. DROPPED

  Comment: This responsibility now belongs to the County Transportation Commissions.

New policies in the 1978 DRTP.

13. Section 5 moneys for transit service will be based on SCAG Executive Committee agreement through FY 1980; thereafter, allocations will be based on an agreed-upon allocation formula. NEW

    Comment: This policy is recommended, based on Executive Committee action of June 2, 1977.

15. Every effort shall be made to maximize the use of available federal transportation grants to support transit system operating costs and capital improvements. NEW

    Comment: This policy was established as part of the adoption of the 78/79 Transportation Development Act guidelines. (Adopted by the Executive Committee in February of 1978.)

Chapter 6.0 PROGRAMS AND ACTIONS

The following sections list dropped and added actions as well as comments.

6.1 Multi-Modal

Ridesharing Actions: none added or dropped. (These were originally found in the auto, transit, air quality, and finance sections. Additional policies to be recommended Jan. 1979.)

Air Quality Actions: none added or dropped. (A more complete set of actions will be proposed, based on the results of the current transportation air quality planning activities, and will be amended into the Regionl Transportation Plan by way of Executive Committee approval in November/December 1978.)

6.2 Automobiles

No actions added or dropped.

6.3 Transit

Nothing dropped; most actions were condensed into the following new actions.

Short Range Transit Plans. The following is a summary by county of actions included in the 78/83 SRTPS submitted by transit operators.

1. SCRTD will expand its fleet by 150 buses per year, from 2210 in 1978 to 2960 by 1983. ("Minimum expansion plan"); replace 1500 buses; renovate several fixed facilities; add 2 bus yards and a maintenance facility. Increase patronage by 24% from 310 million to 384 million annually by 1983. NEW

   Comment: New information.

2. OCTD will double its fleet from 359 buses to 821 buses by 1983, add six transportation terminals, develop the Southern Pacific corridor and increase patronage by 100%, from 20 million to 40 million annually. NEW

   Comment: New information.

3. RTA and Sunline will, by 1983, expand their fleet 49% from 71 vehicles to 106 vehicles, and increase patronage 100%, from 2 million to 4 million annually. NEW

   Comment: New information

4. Omnitrans will improve equipment and quality of service. NEW

Comment: New information.

5. SCAT and Simi Valley will improve service and expand the fleet of 37 vehicles to 44 vehicles by 1983. NEW

Comment: New information.

6. SCAT and Simi Valley will increase patronage by 42% from 2.8 million to 4.0 million annual riders. NEW

Comment: New information

Elderly and Handicapped

7. Transit operators, the CTC's, and SCAG will annually update the element of the Short Range Transit Plan for the elderly and handicapped including procedures and programs to reduce or eliminate barriers and increase the number of fully accessible vehicles in the region's transit and paratransit fleets. NEW

Comment: Summarized from actions on page 4-30 on the 1977 RTP.

8. OCTC, SANBAG, and RCTC will develop a catalog of paratransit services. NEW

Comment: (Same as above.)

9. SCAG, the CTC's, VCAG, and IVAG will update and maintain a catalog of paratransit services for each subregion. NEW

Comment: (Same as above.)

10. SCAG will prepare a regional plan on elderly and handicapped policies, needs, and activities in conjunction with all interested parties in the region. NEW

Comment: A federal requirement.

11. SCAG and the CTC's will study alternative means of coordinating social service agency transportation delivery systems. NEW

Comment: Staff recommends the above action based on work with the SCAG Paratransit Task Force.

12. SCAG, the CTC's, and transit operators will sponsor public workshops for the purpose of considering transportation needs of the elderly and the handicapped (particularly the semi-ambulatory and wheelchair users). NEW

Comment: Summarized from page 4-30, 1977 RTP.

Procedural

13. The CTC's and transit operators will prepare an annual Short-Range Transit Plan and Transit TIP consistent with the RTP. NEW

    Comment: The above reflects federal requirements established under federal legislation and AB 1246.

14. SCAG will prepare an annual regional short-range transit plan. NEW

    Comment: (Same as above.).

Coordination

15. SCAG, the CTC's, and the transit operators will execute and comply with the Memorandum of Understanding BY JANUARY 1, 1979.* NEW

    Comment: The 1977 RTP requires only a Memorandum of Understanding between SCAG and transit operators. This policy expands that to include CTC's.

16. Transit operators, the CTC's, and SCAG will improve and coordinate public transit passenger information systems and services. NEW

    Comment: Summarized from Transit Actions section, 1977 RTP.

6.3.5
System Development Actions

Regional Transit Development Program: Plan Development

17. SCAG, in conjunction with the State Public Utilities Commission (PUC), shall investigate changes in the PUC's "Southern California Restriction" which prohibits inter-regional carriers from providing intra-regional service in parts of Los Angeles, Orange, Riverside, and San Bernardino Counties. Specifically, they shall consider: NEW

    a) eliminating the restriction during days and hours when public transit is not operating;
    b) selectively applying the restriction to certain routes and corridors;
    c) eliminating the restriction entirely and allowing the inter-regional carriers to compete with public transit, offering higher fares but reduced travel times.

    Comment: This is a staff recommendation based on work with the Paratransit Task Force.

18. LACTC, Transit Operators, CALTRANS, and the City and County of Los Angeles will conduct preliminary engineering and EIS phase I and then implement the Regional Transit Development Program in Los Angeles County as approved and funded by local jurisdictions. NEW

    Comment: An update of the Regional Transit Development Program.

* Date added as a result of joint SCAG/Caltrans/CTC's meeting, 4/28/78.

19. OCTC and OCTD will, as part of the Regional Transit Development Program, conduct preliminary engineering and prepare an EIS for exclusive transit guideway in the Santa Ana/Los Angeles Corridor. NEW

Comment: An update of the Regional Transit Development Program.

20. RCTC and Caltrans will, as part of the Regional Transit Development Program, conduct plan refinement and preliminary engineering in Riverside County, and prepare an EIS if required as a result of the plan refinement effort. NEW

Comment: The objective of this policy is to ensure that appropriate work will be initiated in the FY 80 OWP.

21. SANBAG and Caltrans will, as part of the Regional Transit Development Program, conduct plan refinement and preliminary engineering in San Bernardino County, and prepare an EIS if required as a result of the plan refinement effort. NEW

Comment: (Same as above.)

6.4 Highways

No actions added or deleted. Ridesharing-related actions are under Multi-Modal.

6.5 Airport System

o Any plans for development of new major airline airport facilities at Palmdale should take into consideration the limitations which this airport site may have due to the adverse effect of its high altitude and high temperatures on aircraft takeoff performance. DROPPED

Comment: Recommended to be dropped by ATAC, because the policy details a requirement that should by handled by the sponsor of the airport.

8. To assure that Hollywood-Burbank Airport will continue to fulfill its role in the regional airport system, support the transfer of ownership to the Hollywood-Burbank Airport Authority -- a joint powers entity formed by the Cities of Burbank, Glendale, and Pasadena. NEW

Comment: Update of paragraph #2, page 4-46 of the 1977 RTP.

10. SCAG will render all appropriate assistance to those local governments in forecasting, for the purpose of assisting them to legally translate public need into physical facilities. NEW

Comment: Requested by the Intercounty Airport Authority and approved by ATAC.

11. SCAG will assemble the data sufficient to permit the definition of general aviation demand areas, as has been done for air carrier demand areas. This will indicate facility development priorities. NEW

Comment: Recommended by ATAC because of a need to place additional emphasis on general aviation.

6.6 Non-Motorized

No actions added or dropped.

6.7 Maritime and Railroad

The following dropped actions relating to the San Diego-Los Angeles Corridor have been implemented.

Continue to implement recommendations from the San Diego-Los Angeles Corridor Study as outlined. These recommended actions are:

Short-Range

- Increase service by adding one round trip daily (for a total of five round trips daily). DROPPED
- Add one new five-car train set (possibly the newly refurbished Los Angeles County train). DROPPED
- Refurbish and upgrade the existing station at Fullerton, in conjunction with the multi-modal station development at that site. DROPPED
- Improve marketing of intercity rail services (new equipment, expanded schedules, weekend express service, station improvements, reduced travel times, special fares). DROPPED
- Improve local transit connections at each rail station, and provide route and schedule information at stations. DROPPED

Comment: The above actions have been, or are being, implemented.

3. SCAG should support other attempts to utilize existing rail facilities for passenger (commuter) operations.

Comment: Included in other RTP policies.

Chapter 7.0 FINANCIAL PLAN

The financial plan has been updated to reflect current concerns. It should be noted that the highway projects proposed by the subregional agencies exceed the amount of funding that is likely to be available. The final RTP should either prioritize highway projects within financial constraints or propose additional funding sources.

Chapter 8.0 APPENDIX: Updated.

Chapter 9.0 GLOSSARY: Updated.

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